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No. 2493.—VOL. LIII.

LONDON, SATURDAY, JUNE 2, 1883.

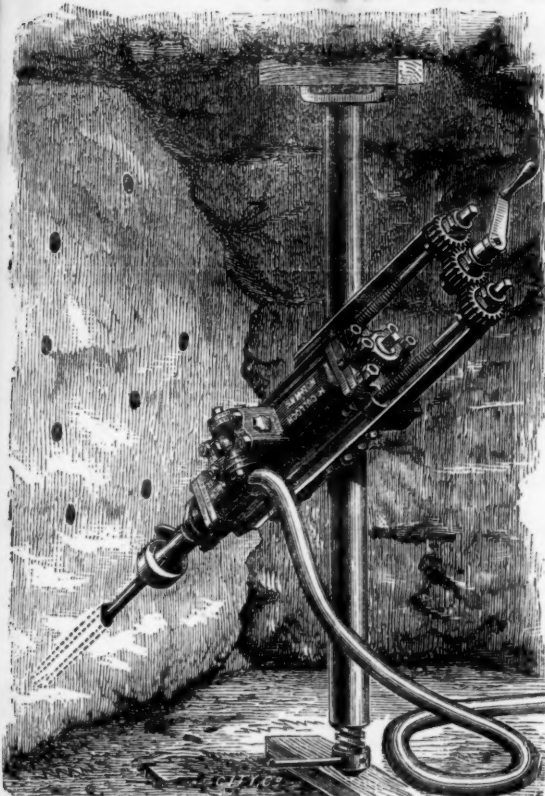
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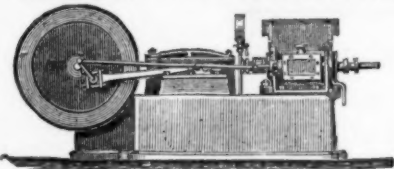
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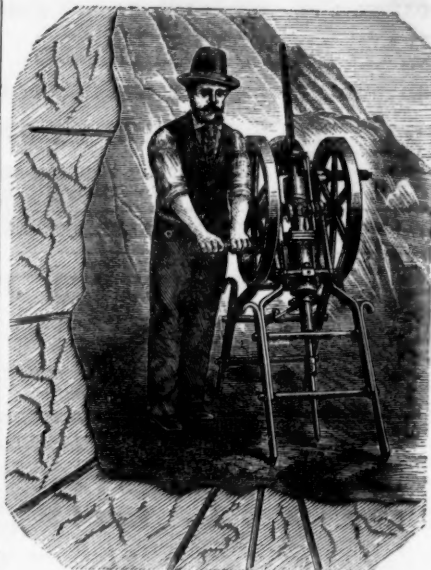
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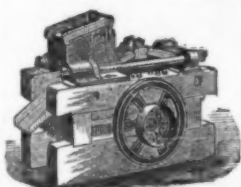
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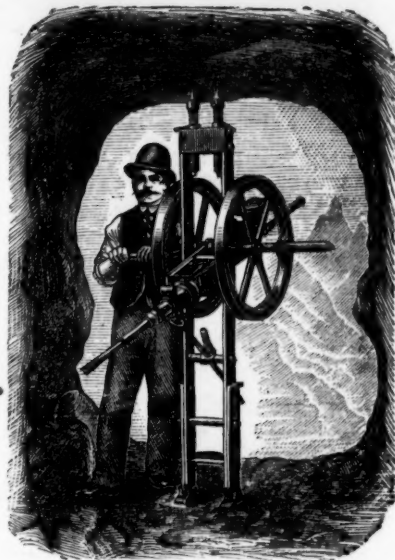
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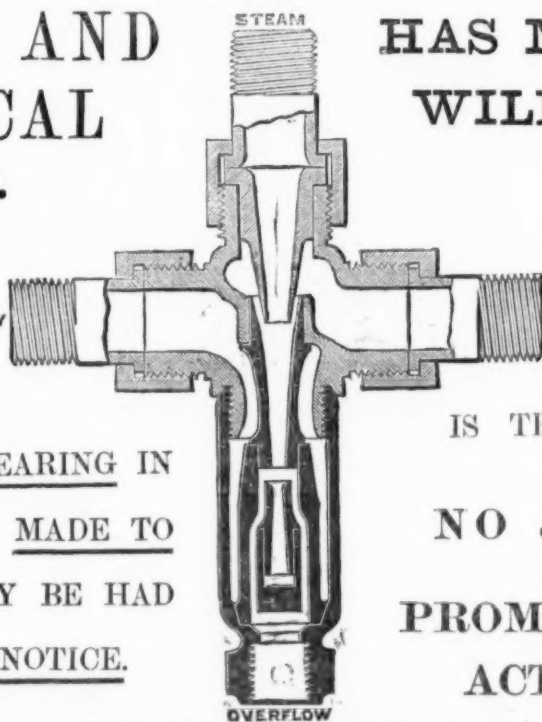
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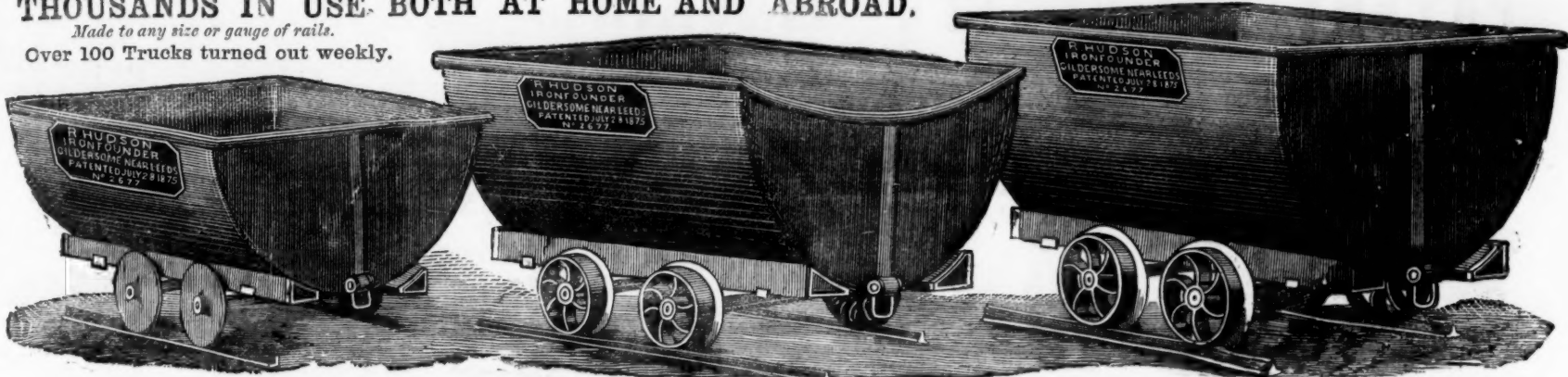
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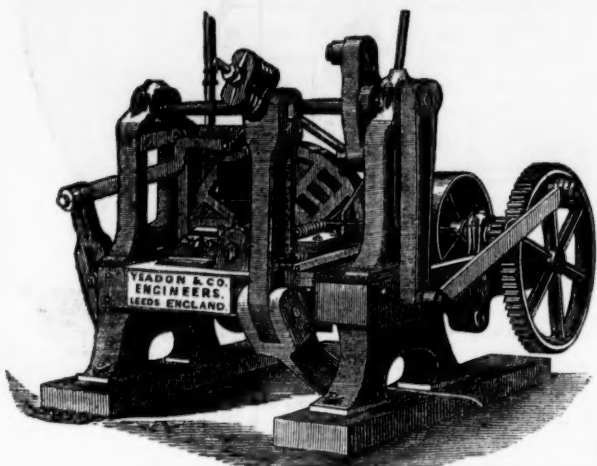
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FOREIGN MINING AND METALLURGY.

The Belgian iron trade exhibits a certain depression. Transactions have become rare, and when clients are met with they ask for fresh concessions, and are by no means anxious to do business. This for the rest is almost always observed when the tendency is downwards. When the markets show such a tendency buyers hope that the limit of concessions has not been reached, and that by a policy of well calculated abstinence it will still be possible to increase the difficulties of producers. We have at the same time no fresh reductions to report in prices; on the contrary, a recent letting of contracts for rolling-stock for the Belgian State Railways appears calculated rather than otherwise to restore a shade of firmness to the markets. We may probably sum matters up by observing that quotations have been sustained rather well than badly at their former level. Casting pig has made 2*l*. 18*s*. per ton at Charleroi; the Athus-Halanzy group has maintained a quotation of 2*l*. 10*s*. per ton. Refining pig has ranged, according to quality, from 2*l*. to 2*l*. 8*s*. per ton. No. 1 iron has been quoted at 5*l*. 4*s*. 6*d*. per ton, although business might probably be concluded at 5*l*. 2*s*. per ton. No. 2 has been feebly supported at 5*l*. 10*s*. per ton, and No. 3 at 5*l*. 16*s*. per ton. Girders are readily procurable at 5*l*. 8*s*. per ton. No. 2 plates have been in comparatively little request at 7*l*., and No. 3 at 7*l*. 16*s*. per ton. Plates of commerce have made 9*l*. per ton. Another adjudication of rolling-stock for the Belgian State Railways will take place in the first fortnight of June. The production of the ten principal collieries of the Liège basin in 1882 amounted to 2,384,484 tons, as compared with 2,280,652 tons in 1881.

The intelligence received with respect to the Belgian coal trade continues favourable. It is somewhat surprising at this period of the year to observe so much animation in business and so much activity in deliveries. In the province of Liège, especially, stocks of coal are relatively of little importance. Some collieries are so well provided with orders that they show a disinclination to enter into contracts, at present rates, later than September next. Upon the whole Belgian coalowners may congratulate themselves upon the present aspect of affairs, especially having regard to the tone of Belgian metallurgical industry, which is less brilliant. Household coal is still well maintained at former rates—in other words, the summer has not made its influence materially felt at present. In the Couchant du Mons there is little or no change to report in coal prices. The coal trade appears to be improving in Germany. A certain reduction has taken place in the production of the collieries in the basin of the Ruhr. Deliveries of German coal upon foreign markets are continuing to acquire a considerable development. The ports of the Rhine especially are sending large quantities of combustible to the different districts which consume Westphalian coal. In the Sarrebruck district the state of affairs is generally satisfactory. The extraction of this district amounted in April to 460,154 tons, as compared with 418,862 tons in August, 1882, showing an increase of 41,292 tons, or nearly 10 per cent. Notwithstanding the increased extraction of the Sarrebruck district in April, stocks did not increase during the month, the deliveries for the month having amounted to 472,044 tons. Recent contracts for coal concluded on account of the Belgian State railways show an advance of about 6*l*. per ton, as compared with corresponding contracts concluded in May, 1882.

The Parisian iron trade still shows a want of activity, and orders have come to hand rather feebly. The result of this is that quotations have not been well sustained; iron in bars is procurable at 7*l*. 4*s*. per ton, while large ordinary plates are quoted at 9*l*. 4*s*. per ton. The imports of iron minerals into France in the first four months of this year amounted to 520,978 tons, as compared with 430,262 tons in the corresponding period of 1882, and 361,537 tons in the corresponding period of 1881. In the imports for the first four months of this year Belgian iron minerals figured for 85,200 tons; German for 159,027 tons; Spanish for 140,176 tons; Italian for 20,610 tons; Algerian for 102,055 tons; and other minerals for 13,850 tons. The exports of minerals from France in the first four months of this year were 32,185 tons, as compared with 34,249 tons in the corresponding period of 1882, and 21,281 tons in the corresponding period of 1881. Business has proceeded sluggishly upon the German markets, especially as regards pig. Affairs generally are not carried through so readily as was hoped would be the case a few weeks since; on the contrary, the general tone of business has become one of uncertainty. Notwithstanding the measures taken for reducing production prices have only been maintained with a certain difficulty. The German steelworks have continued well employed. A contract for 625 tons of steel rails has been taken at Elberfeld by Krupp, of Essen, at 7*l*. 11*s*. per ton. Upon the whole, it may be said that quotations have experienced scarcely any variation upon the German markets, except as regards pig, which has exhibited a downward tendency.

ELECTRIC LIGHTING IN SCOTLAND.—The fallacy of supposing electricity to be applicable as a general illuminant may now be regarded as demonstrated, though its value for the illumination of large spaces and for certain special purposes cannot be doubted; it is, therefore, not surprising that the official investigation at Edinburgh has resulted adversely to the company. On behalf of the Board of Trade, Major Marindin held an enquiry on Monday regarding an application which had been made by the Brush Electric Light Company of Scotland for a provisional order for a specified area in that city. He said it was the first enquiry under the Electric Lighting Act. It embraced the questions of capital, area, and the ability of this company to carry out the works which they proposed to construct. Several witnesses having been examined, Major Marindin stated his intention of reporting against the preamble of the Bill, on the ground that the company had failed to make out their case.

ENGINEERING AND METAL TRADES EXHIBITION.—In order that the Exhibition which will be open at the Agricultural Hall from July 5 to July 21, may be made as thoroughly representative as possible of all the branches of trade comprised within its title, and as an encouragement to workers to take a direct part in securing the success of this object, the manager has decided to allot free space to working men who may wish to exhibit inventions or models of their own make. And he intends to have a committee of manufacturing exhibitors appointed for the purpose of awarding the prizes which will be offered. Mr. Samson Barnett, jun., has been granted the certificate of the Board of Trade, under the Act 33 and 34 Vic., chap. 27, which protects unpatented inventions or designs which may be exhibited or used in the Exhibition, for six months from the date of opening.

HOLLOWAY'S PILLS.—ALL OUR FACILITIES.—Almost all disorders of the human body are distinctly to be traced to impure blood. The purification of that fluid is the first step towards health. Holloway's pills recommend themselves to the attention of all sufferers; no injurious consequences can result from their use, no mistake can be made in their administration. In indigestion, constipation, dyspepsia, and chronic constipation, the most beneficial effects have been, and always must be, obtained from the wholesome power exerted by these purifying pills over the digestion. Persons whose lives have been restored to ease and strength by Holloway's pills, after fruitless trial of the whole pharmacopoeia of physic, attest this fact.

The map displays a grid of numbered plots, likely representing individual mining claims or shares. The numbers are arranged in a regular pattern across the grid, with some plots containing additional text or symbols. The map is oriented with North at the top, as indicated by the compass rose. The surrounding area is labeled with the names of the neighboring countries: NW, N, NE, E, SE, S, SW, and W.

At the meeting of shareholders, which will shortly take place, it is

to be hoped that there will be a good attendance, and that those who hold a large stake in the property will be able to assist the directorate by advancing some practical suggestions that will prove of advantage to our future prospects. It is the duty of shareholders, as much as possible, to become possessed of practical information. For my own part, after obtaining all the information I can from the secretary of the Chontales office on the arrival of each mail, I submit for opinion those points in the workings of which I am not posted up to those with whom I am acquainted, who have had the management of mines somewhat similar to our own.

Bristol, May 30.

W. B. PALMER.

CHONTALES GOLD MINE.

SIR,—After a long period of disappointment that stage in the history of the mine has apparently been reached which records difficulties solved, obstacles surmounted, and doubts blown into mid-air. The yield of gold from 325 tons of quartz from Consuelo averaged in the last monthly report 1 oz. 8 dwts. 10 grs. per ton. The total yield of gold is valued for the month at 1396*l.*, and this has been produced at the small cost of 287*l.* Yet despite such results many shareholders seem indisposed to retain confidence in the property, and other concerns, the profits of which are at present entirely prospective, stand in considerably higher favour. Under these circumstances, and as one whose life is falling "into the scar, the yellow leaf," I shall not, perhaps, be deemed impertinent if I advise shareholders not to sacrifice their interest, but to hold on for the "good time" which I believe is undoubtedly coming.—Weymouth, May 28.

T. D. W.

BRAZILIAN GOLD MINES, AND THEIR PROSPECTS.

SIR,—I took occasion to speak of the real condition of the Brazilian Gold Mines (Limited) nearly two years ago, when Mr. John Lean was publishing most extraordinary letters concerning the richness of the ground, and his perfect knowledge of mining in jacotings, and especially of this particular ground. Later on I called attention to the remarks of Mr. W. Tregellas, which said, "He strongly recommends the immediate purchase of Gold Hill Mine shares and Brazilian Gold Mine shares, which are safe to have a great rise."

The secretary, Mr. Harvey, hastened to dispel the pessimist views entertained by your "Minas" correspondent, by publishing reports from Mr. Geach, the manager at the mines, and certainly Mr. Geach offered what encouragement he could, but as my predictions seem about to be fulfilled I want to call the attention of the shareholders to the official letters of the manager who preceded Mr. Geach, reports that I have never seen in print, reports that may not have influenced his discharge from the company's service, but he was discharged. The former manager is well known here, and his integrity cannot be impeached: He did not care to waste the shareholders' money, who plainly told the London managers that he did not wish to do so. Even now an effort is being made to calm the shareholders, and do away with the effect of Mr. Lean's report—a report made for money, or a ridiculous lot of stuff, such as he has from time to time imposed on the readers of the Journal, and who can read his former letters on the Descuberto, now the Brazilian Gold Mines, and not believe that they were paid for.

In sending Mr. Lean to the mines lately the managers seem to have caught a Tartar. Is it supposed that no mine can be examined by experts here, that a fossil like the one engaged to report on Descuberto must be sent at great cost and loss of time? Why, Dr. Gorceix, of the School of Mines, Ouro Preto, has reported on mines without charge, in the interest of the public (I am not making a bid, I examine mines only for the Journal). I dismiss the Brazilian Gold Mines (Limited) with my advice to the company, not to spend more money.

I have nothing new to communicate. The much-talked-of works to recover gold from the tailings of the Morro Velho Mine of the St. John del Rey Company are about to be commenced, and the American tailings expert has arrived. Occasionally as some settlements in the drains and canals where rich stuff has deposited gold "to pay" will be found; but, as I have before said, in my opinion there will be no perceptible profit on working the mass of tailings, out of which your correspondent, "Investigator," expects to get 1,000,000*l.* profit, and he "calculates" the profits for 1883 will admit of a dividend at the rate of 35 per cent., and the stock to rise to 400 this same year. At the risk of being thought by Mr. "Vigilance" a detractor of this grand old mine of Morro Velho I must say that the chances in favour of dividends are not increasing, although who knows but that in the next generation, or some time after both he and myself are "past praying for," the mine may fill up again with gold. I hope, Mr. Editor, to find something good to write about soon, but I shall speak of matters here just as I find them.

Ouro Preto, May 2.

MINAS.

MINERAL RESOURCES OF SOUTH AUSTRALIA—IMPORTANT DISCOVERY OF NICKEL AND ANTIMONY.

SIR,—I should much like you to bring before the notice of the readers of the *Mining Journal* a most valuable discovery of nickel and antimony in the province of South Australia. The facts of the case are these:—A few hundredweights of ore, all of the quality described in the result of assay hereunder, have been found a few feet below the surface.

Analysis of sample of mineral from Mr. H. M. Addison, Adelaide, South Australia.—Gresham-street Laboratory, Nov. 16: Antimony, 57.83; nickel, 24.17; sulphur, 18.00=100. Since making this analysis I have had the opportunity of inspecting five bags of the ore from the mine, and found them of an equal quality to the above. I also learned the following facts relative to the mine—that it is in an undulating country to the north of Port Augusta, and situated about 30 miles from the railway to that port, so that the cost of carriage from the mine to a ship would be about 2*l.* per ton. There is a good supply of water close at hand, and abundance of timber suitable for mining purposes when the mine gets deeper in following the ore, and that this will not be long is evident from the last report from the man employed. In comparing this ore with that from New Caledonia the analysis shows that it is richer in nickel, that it can be easily separated from the antimony without any loss of the nickel, so that both can be made available. Such is not the case with the New Caledonia ore, where the silicate and magnesia cannot be turned to account. The superiority of this ore will be at once apparent to any one acquainted with the metals.—A. THOMAS, F.C.S., Analytical Chemist.

Doubtless this would be a "spill" from the lode not far distant. Nothing of any moment has been done to find the lode, only one man having been employed on the property, which is a block of 240 acres, held under lease from the Crown for 99 years. The proprietor is a man of ordinary means only, and has spent about 500*l.* in acquiring the lease and in prospecting the land, and does not feel justified in going on spending money in searching for the lode, for although an outlay of 500*l.* might be ample to effect the discovery it might take 5000*l.* My object, therefore, is to bring this discovery before those gentlemen at home and abroad who read the *Mining Journal* and really are mining men, and have the courage to spend a thousand or two in a legitimate speculation which, if successful, would make them millionaires. Ours is a very small community, and at the best of times our people have but little enterprise. Every now and then they are possessed with a mania for mining scrip, but they will not go in for mining; and our capitalists for the most part are those who by hard labour and drudgery have amassed wealth, and are, therefore, the very last men who would risk a penny. Under separate cover I send you a small specimen of the mineral.

H. M. ADDISON.

ROCK DRILLS—RELATIVE MERITS.

SIR,—I see by the *Mining Journal* of May 12 that Messrs. MacKean and Co. have given in, and the trial of drills is not to take place. As I happened to know all the circumstances of the MacKean drills in the Festiniog Tunnel, I was a good deal surprised at the statement made by them in the Journal of March 10. The fact was that six Ingersoll's were expected to and did do the same work at the other end of the tunnel that the twenty MacKean's had to do in their end.

I was at Camborne in 1877 when the MacKean was knocked into a cocked hat by the Ingersoll. It was on a piece of greenstone boulder. The Ingersoll was a 24-inch machine, and the MacKean a 34. The Ingersoll drilled about 2 in. in depth to 1 in. done by the MacKean, added to which the man had to attend the whole time to the MacKean, whilst the Ingersoll was set going and left to itself, the automatic feed acting splendidly. The Barrow drill was tried also at the same time, but was also a failure; they did not even get their drill entered into the stone, though they had two machines to make the trial with.

Sicancea, May 26.

J. R. LEAVER.

TIN DRESSING MACHINERY.

SIR,—I have noticed the remarks in the *Mining Journal* on this subject, and that jiggling machinery is strongly recommended by some while others appear to be doubtful as to the advisability of adopting jiggers where buddles, &c., have hitherto been employed. In almost every branch of science, art, business, industry, calling, and trade there are able representatives and advocates, but the subject of tin dressing is very rarely publicly discussed by the real practical tin dresser, and each seem to conduct their mode of dressing after their own manner, except where, through ignorance, they merely copy the principle of some other mine, whether suitable or not to the particular ore to be treated. All practical dressers of ability are aware that different class ores require different treatment, and that what may be suitable to one class is quite contrary to another, and in laying down dressing-floors the first consideration should be what is the nature of the ore to be treated, first at the stamps and thence downward, bearing in mind the great points in tin dressing—1st, do not bring the tin any finer in stamping than barely to yield the pure grain; and 2nd, the importance of saving the tin, or as much as possible of it, as soon as it leaves the stamps grate; the value of this will be seen when brought to the hutch within a few yards of the stamps to being allowed to spread over an acre of ground or more.

I have given this matter consideration and attention for many years. A proper classification and separation are, no doubt, great points to accomplish, and a careful observation at the start as to the nature of ore to be dealt with will soon determine the kind of appliances most suitable to the requirements. Generally speaking, my conclusion is that two-thirds of the tin may be taken by one process—a self-acting separator immediately it leaves the stamp, and that the remainder, or all of it that will pay, may be extracted by the process of buddling, washing, framing, and other ordinary processes. It is a fact not to be questioned that much ignorance is often displayed in laying down dressing machinery and floors, notwithstanding it is one of great importance, requiring much thought, skill, and attention.—Trevine, May 29.

ROBERT S. RICHARDS.

GOLD AMALGAMATION, AND THE SICKENING OF MERCURY.

SIR,—I have just received the Journal of Jan. 13, and have gone carefully over Mr. Readwin's letter on the above subject. One of the main objects of the *Mining Journal*, as I take it, is for the communication of ideas and conveyance of information between those interested in mines and mining, and the engineering matters connected therewith. I myself own to having obtained many valuable hints and considerable knowledge by perusing and studying its pages. The various mine reports, accounts of meetings of scientific societies, shareholders' meetings, descriptions of machinery, &c., are full of information for those who take the trouble to read same. What may appear to some folk to be nonsense, others may consider as very good sense. After, however, it has passed your discriminating eye, Mr. Editor, it can very well be left to your readers to judge for themselves of its worth. Whichever of the motives enumerated by Mr. Readwin may be inferred to have been the inducement for writing my letter (published in the Journal of Dec. 30), I have confidence that a portion at least of your readers will consider that what I have written is honest information, possibly "the result of superficial knowledge of the subject reported on," but still honest and disinterested. The information I wrote, whether founded on superficial or mature knowledge of the subject, was a relation of my experience of the working of the Britten pan (which to all intents and purposes is the same as the Britten-Readwin as far as I can understand it), and no doubt will be taken for what it is worth. Knowing this, I do not feel even a little bit sorry for having written my letter, though Mr. Readwin is of opinion that I should be.

I have already stated my views of the machine Mr. Readwin uses, and need not go over the same ground here, tempting though it is with the prettily numbered paragraphs of Mr. Readwin's letter before me, but will simply add that if the trifling alterations made by him in its construction, transforms it from what it was—an inferior apparatus, into what he claims it to be—the most perfect, I should very much like to see the machine at work in its altered and improved form. Mr. Readwin harps on the word inaccessible as applied to this mine. I am not aware that I have used the word. True, it is difficult of access, and the transport of machinery a serious item. Trevithick ruined himself by trying to do in Peru what was a simple matter in Cornwall. Mr. Readwin, who is certainly not greater than Trevithick, would in like manner find a difference between bringing his machine to places similar to this, and fitting them up in the neighbourhood of London, their portability notwithstanding.

I leave to those interested to judge for themselves as to the completeness or otherwise of the arrangement of stamps and amalgamating apparatus sketched in my previous letter. I note that I was in error in supposing that Mr. Readwin's process was calculated for treating auriferous pyrites and other difficult ores non-amalgamable by ordinary means. It is, I see, simply proposed to do, by a sort of deferred and tedious process, what can be done, and has been done for years, by a far more expeditious method—extract the free amalgamable gold. Why, the Spaniards did this generations ago with the antique, I was almost saying unique, "arrastre." "Slow and sure" is Mr. Readwin's motto, and in the arrastre we have a machine slow enough in all conscience, and at the same time as sure as any one can desire. I said that my reason for bringing the Britten's here was "to treat in them such rich portions of mineral that it would not be advisable to put in the stamps." In bringing them out even for this purpose I own to have erred, though at the Clogau, as Mr. Readwin states, very little gold was got there on the discontinuance of the Britten pan. There are, however, other reasons besides the presence of tellurides and bismuthides in the mineral why more gold was not extracted there. The stamps erected at the Clogau were some old tin ones, purchased by the late Mr. A. Dean, I believe, at a sale in Cornwall, and were as different from the modern California type as a Cornish tin-floor is to a first-class amalgamating mill.

Mr. Readwin ridicules the statement in my letter which he has been good enough to mark No. 31. I was under the impression previous to this that Mr. Readwin really did possess other than a superficial knowledge of the subject. What is the source of trouble and subject of remark in every report of the St. John del Rey directorate? Is it not the retreatment of the "tailings" which contain the unamalgamable gold? Is there not at most large quartz mines immense heaps of tailings which are said to contain this or that number of pennyweights to the ton, but which latter cannot be extracted profitably? I have the authority of Mr. Fitzgerald, lately manager of the great El Callao Mine (which mine owes its wonderful success in great measure to his skilful management), in stating that at the said El Callao Mine "22 per cent. of the lode consists of sulphurets which hitherto (April, 1881) have only been realised to a small extent, and are in consequence piled up at the mine ('tailings' Mr. Readwin). These sulphurets are very rich, the assay contents being not less than 17 ozs. of gold to the ton. Experiments are now (April, 1881) being made by Mr. Oxland (son of Dr. Oxland, the inventor, with Mr. Hocking of the well-known rotary calciner), with a view to extracting the gold from the sulphurets. He (Mr. Oxland) has been sent out specially to make these experiments." Surely all this would not be necessary unless the gold in the "tailings" was troublesome. Here is a field for Mr. Readwin, but perhaps he would sooner discover the precious metal spectroscopically in so distant and unhealthy a place as El Callao—a good idea when the place is impossible.

I noticed that Mr. Readwin has some Organos tailings by him, "containing more than 100 ozs. of gold to the ton, associated with (?)

—mystery! I would only be too glad to acknowledge these tailings as produced by my working, as it would tend to prove that what I profess to do—concentrate the tailings and pyrites into a compact form for calcination and re-treatment—had been done properly. I am sorry that I cannot claim anything like so successful a result, so that the tailings referred to by Mr. Readwin are not of my producing—in fact, not a pound of tailings produced here during the present working has been sent away. Samples from the old heaps at Parys Mine have been tested by the Britten-Readwin process, and a small result obtained. Slow and sure and a low grade being the motto, why not go in for the Parys heap? Enough work here for a thousand Britten pans for a generation or two. The proprietors are a shrewd party, and would be glad to negotiate terms, I have no doubt, even if only to the extent of 1*l.* a ton.

From a casual perusal of Mr. Readwin's letter it might be thought that I am interested in the manufacture of stamps. This is not so. I would as soon purchase from an American maker as from an English one, being of opinion that our cousins manage these things better than we do. Greater experience has led them to it. As Mr. Readwin says, a man would be a fool to fish or scoop up the mercury if he knew it did not contain gold. My remarks as to searching, as a provision against theft, apply to gold mines, not to reduction works, on the banks of the Thames, especially low grade works. Mr. Kensington's pan appears to me to be excellent, and one calculated to obviate perfectly a difficulty I have experienced with the ordinary Hungarian pan—i.e., the forming of a hard sediment, underneath the mercury, of lead, iron, and other heavy particles, thus raising the mercury above its proper working level, and tending to loss of same. The spiral worm in Mr. Kensington's pan will entirely overcome this difficulty. I should feel much obliged to Mr. Kensington if he would favour me with further particulars.

JAMES G. GREEN.

COOK'S KITCHEN CUT RICH AGAIN!

SIR,—This renowned old mine, which has been working continuously for more than half a century, and given good dividends for copper, besides some 25,000*l.* to 30,000*l.* from the top of a bunch of tin, may now be said to have become a permanent and profitable mine. Last year they succeeded in cutting Chapel's lode rich at the 332 fm. level, which has now been driven east about 70 fms. in a fine course of tin, with end still good, proceeding east. Since that the shaft has been sunk, and the 345 fm. level extended from the shaft over 20 fms., and communication effected by two winzes, thus securing splendid ventilation. It will be seen with pretty hard ground much time was lost in effecting this desired communication, which tells heavily against deep lifts in progressive mines with hard ground, but when once accomplished the corresponding benefit in stopping will now be realised from a lode capable of making alone splendid returns.

But in addition to this, however, during the past week the Dolcoath south lode, the most profitable one in Dolcoath, has been cut in Cook's Kitchen, where it runs all the length of the set, and all the depth untouched for tin. The lode is cut at the 320, taking the line of the lode from the 47, where it was extensively worked for copper, it being the lode within 8 fms. of the bottom level, thus showing this valuable lode can be extensively worked on in a short space of time. I might say they have got into the lode 6 ft. without any sign of a wall, tin all the way; and there is every reason to suppose it will be fully as wide and rich here as in Dolcoath. It was stated some weeks since that the lode did not exist in Cook's Kitchen, and the shareholders were advised to stop the waste of money, but the discovery mentioned shows that the recommendation was not justified, for the mine now promises to be a permanent prize, and no company more deservedly merits it. I trust we shall soon see some security with transfers and a return of public confidence.

Louth, May 30.

D. J. H.

LEVANT MINE, AND ITS MANAGEMENT.

SIR,—Continuing my remarks upon this mine I may state that nine years ago the mine became forked to the bottom, 266 fathoms below the adit or sea level; three years later, in 1877, both the engine-shaft (otherwise called the sump shaft) and the skip shaft, used for drawing material to surface, were sunk to the 290 fm. level. Consequently, taking into consideration the extent of shaftway from the sea level to the surface, which is on the summit of a high cliff, Levant Mine is more than the third of a mile in depth. Both these shafts communicate at different levels and are sunk on the same mineral course, the old Levant lode. There is also another surface shaft by which miners go to and from their work, the upper portion of which is furnished for 170 fathoms by a man engine. The mine at its deeper levels having been extended under the sea a third of a mile from the skip and engine shafts, it became necessary to sink a shaft called the submarine to the 240 fathom level, on which was placed in the year 1876 a small engine to draw the stuff to the 210, from whence it was trammed to the skip shaft. At the same time our agents commenced driving a level from that shaft at the 278 fathom level, in order to meet and relieve the submarine, which in the year 1878 was down to the 270. On prosecuting the driving at the 278 fathom level, the miners, following the mineral northwards found the vein or lode tended eastward, the old Levant lode lying due north and south, and that it assumed a different character to the latter, so that our agents considered a new Levant lode had been discovered, which being pursued for 60 fathoms became unproductive and so difficult to drive from the hardness of the country that it was thought advisable to introduce boring machinery for the purpose of saving time and eventually money by relieving and ventilating the submarine levels and do away with the necessity of double hauling.

The first contract was let in the spring of 1880 to Messrs. Beaumont's Rock-Drill Company, at 10*l.* 10s. per fathom to drive north, presumably on the old Levant lode for 140 fms., then cross-cut 25 fms. to the submarine, which placed on a course called the north lode, took a diagonal direction from south-east to north-west, and intersected the old Levant lode 90 fms. beyond the submarine shaft. Messrs. Beaumont soon found to their surprise that all trace of a lode had disappeared, and were instructed to take an eastward direction by keeping to the right, with the result that the further they went the more refractory the rock became, so that after driving 40 fms. in four months the Rock-Drill Company refused to proceed further unless 14*l.* 14s. per fathom was paid them, and they were remunerated at the same price for the cross-cutting beyond the extent stipulated, preferring rather to throw up the affair than continue it at a heavy loss. A meeting was consequently held, at which a resolution was passed that Messrs. Beaumont, if they so desire, be relieved from their contract without prejudice. Fortunately for the mine this was accepted by them, otherwise a lawsuit might have ensued, when the mine would have inevitably lost; or the boring machine expenses to the mine, which were then estimated at 200*l.* a month, would have been enhanced, there being, moreover, daily indications that the air-compressor was likely to go to pieces through the severe strain necessary to propel the air required for the powerful machines to perforate so hard a matrix as the country presented. On dialling the mine before setting another contract it was found that the suspended level had assumed a direction east north-east, consequently approximating a right angle to the original point of departure from the shaft, and was estimated to be distant from the north lode 50 fms., which it was now thought advisable to reach. The second contract was taken by another company for four months, with smaller machines, and a diminished driving area, at 13*l.* 13s. per fm., the mine at the expiration of that period having the option of purchasing four boring machines if they gave satisfaction, which was done, when our own miners took charge of and worked them after a little training. In spite of the diminished expenditure through cheaper labour, the expenses of the boring machinery were estimated by the agents as not less than 600*l.* every four months.

On reviewing the expenditure of the mine for the past three years when the rock-drills were being used, I find it to be 13,000*l.* more than the three previous ones, against which it may be pleaded as a set-off that there were during the last three years 21 men and boys more employed underground. On striking an average in spite of the lavish expenditure at surface, it may be proved that 7*l.* of mineral

raised by each tribute and tut man equalled before the introduction of boring machinery the expenditure of the whole mine, one-half of which may be put down as received and fairly earned by these underground labourers, the other half devoted to returning charges, current expenses—such of engines and machinery, salaries of officers, &c., would be scarcely affected by the introduction of a score of miners, consequently the whole of the expenses in connection with the boring operations, including air-compressor, air-pipes, boring machines, and working the same, cannot well be placed under 9500*l.*, of which amount at least one-third has been to no purpose extracted from the pockets of the shareholders, seeing that it has taken three years to arrive at the submarine, whereas 12 months was the original estimation by Messrs. Beaumont if put to drive on a lode of determined length specified; but the indeterminate course adopted by the managing committee, alternately shifting to the right and left, might lead to the inference that they had imbibed the notion that the post to be won was in the possession of an enemy, and must, therefore, be taken by stratagem. R. B. SEARLE.
St. Just, May 30.

MINING LORDS, AND MINING ADVENTURERS.

SIR.—So many times has one within the last 50 years responded to the toast "Lords" and "Adventurers," that it is with deep regret that one finds their interests apparently in opposition, only apparently—it is impossible that their true interest can be other than identical. The motto of 1000 years, "One and All," must not be blotted out of the Cornish vocabulary by reason of the disagreements at Dolcoath and South Caradon. Let me remark parenthetically, this misunderstanding would probably not have arisen if account-house dinners had been kept up in Cornwall; their magic influence for good, on the relationship between lord and adventurers, or adventurer and merchant, and employer and employed, cannot be overated, notwithstanding that the punch was of the best quality. But "proceed we now," as a preliminary, to state that the writer is not acquainted with Mr. Basset or his agents, nor with Capt. Rogers or his agents, whose acts have placed them at variance with the lords and mining adventurers of Great Britain, and who must ultimately find that Tallyrand was right when, in his remonstrance with Napoleon, he said, "I tell you, Sir, there is somebody stronger than anybody," and to Napoleon's, "Who?" Tallyrand's rejoinder was Everybody—it is this "everybody" whose opposition these gentlemen and their advisers have (one ventures to think injudiciously) raised. A few years since mine proprietors might have defied opposition now "the lords" are powerless in the hands of a temperate and able agitation, but it must be both temperate and wise.

That there must be legislation to protect the interest of the adventurers and investors of capital in mines is a foregone conclusion. The moment the challenge was given, the defeat was certain. On the day that the Basset family demanded a fine for Dolcoath, Tellyd's lord lost cast, and the value of his mineral property fell 40 per cent. at least and the shock, to fixed but specially to mineral property, was felt throughout the kingdom. England has been the last European country to touch the sacred edifice of "vested rights," but now legislation in that direction is the tendency of the age—witness the Irish Church and Irish Land Acts, and the Agricultural Holdings Bill. Is legislation more required in these cases than in the case of mine leases? Certainly not. Let an everyday case be put. A company is formed with a capital of 50,000*l.* to work a mine under an ordinary mining lease for 21 years, at an 18th royalty with the usual covenants, under which the account-house, smith and carpenter's shops, and other buildings, erected at the adventurers' cost, at the expiration of the lease, becomes the property of the lessor. The lessee further pays 100*l.* an acre for such land as he may require, and a minimum rent of 20*l.* or 30*l.* per annum. This mine is carried on (say) for the first 15 years at a loss, although large returns of ore are made on which the lessor gets his 1000*l.* or more a year. The mine just before the expiration of the term returns a profit. The lessor has the right to sweep into his net the buildings, work done, taking the mere machinery at a valuation, and the old adventurers are ousted; the lord of the soil benefiting it may be 50,000*l.*, possibly 100,000*l.*, at the expense of the adventurers, by turning out the old adventurers, or impose a heavy fine for renewal as at Dolcoath. All that can be said in favour of the Dolcoath fine of 25,000*l.* is that had 50,000*l.*, or a still larger fine, been imposed such is the value of the Dolcoath Mine that it must have been paid.

Every civilised country in Europe has made provision for the easy working of its minerals, and why is this necessary? The day of exchange and barter is past and gone, the struggle for existence has begun. Every indigenous produce must be made available for "the sons of the soil," native industry must be encouraged, and above all copper, lead, and tin must not be allowed to remain in the bowels of the earth in Cornwall until the over-production of other countries has rendered them useless. The lords must be saved from themselves in spite of themselves but how? By having a fixed maximum royalty until dividends are paid. By giving the right of renewal to the lessee on terms named in the lease or under an arbitration clause. By abolishing the right to insert a clause in the lease making it imperative to work on the Cost-book System, which Cost-book System be it remembered renders every shareholder liable for the whole debts of the mine, which it is in many cases impossible for him before purchasing shares to ascertain, it is a guarantee for the benefit of the bankers and merchants, but ruinous to the "out adventurer," as the writer of this knows to his cost. Agitate! Agitate! Agitate! Adventurers, householders, shopkeepers, engineers, miners, "One and All." Calmly, wisely, but resolutely agitate until you have gained fair terms for the capitalist, and such as will enable him to give reasonable wages to the miner and workman. AGITATE.
May 30.

SILVER HILL COMPANY.

SIR.—As an anxious shareholder I wrote to head-quarters fully a fortnight ago, politely requesting some information of the above concern, but up to the present no answer has been given. This is what the board, or secretary I presume, would call looking after the company's interests, or it may be they are seemingly wanting in courtesy. But, Sir, there is another more substantial reason; such conduct on the part of such companies when in a chaos sort of state goes far to injure other properties, and tend to induce capitalists to have nothing to do with mining concerns, and to take our grist to other concerns, where at least some satisfaction can be got by a more honest attempt to do business as it ought to be conducted. I would be thankful to know if the board still exists, and if so what, if anything, is being done? If not existing what do the shareholders intend doing? The property being so valuable, is it not worth while creating the shares 2*l.* each, and calling up (say) 2*s.* on each, rather than it should fall into other hands after so much dead work has been accomplished? The turning point cannot surely be far off, or the mining and geological authorities must be far from correct, and their supposed ability naught.—Leith, May 30. W. B.

SILVER HILL MINING COMPANY.

SIR.—Can any of your readers inform me (and doubtless others who are interested) of the present financial position and prospects of the above. I hear upon good authority that the company is a thing of the past, and that at present one gentleman is sole owner; if this is so what has become of the directors, and how will the shareholders stand?—Barnstaple, May 28. D. P. D.

CALLINGTON DISTRICT, AND ITS MINES.

SIR.—At New Redmoor the pneumatic stamps were set to work yesterday and proved capable of treating a large quantity of instuff which they have there. It is now the intention of the agents to put on additional men to drive the ends and stope the backs on the tin lodes. They have commenced dressing their silver-lead, and they are preparing their second parcel of arsenical soot, and now, with their tin, we expect soon to see the mine self-supporting. They have been at a great expense in plant, which is all of the best quality. I stated in the *Mining Journal* of May 19 that it might reasonably be expected that at the 50 at Langford, when extended a little farther east, it would greatly improve; they have now a leader of rich copper ore 10 ins. wide. Wheal Lusky lode is still 8 ft. wide, and

producing more ore. This is a very promising young mine; the sett was applied for times without number by Mr. T. Kitto for the late South Caradon Company, of which he was the purser. The shaft and adit end at Trebartha Larnae is still producing its usual quantity of tin. The stamps are to be put to work June 25, then they will be soon in the market with tin. JOHN BUCKINGHAM.
Callington, May 30.

SOUTH KITTY (ST. AGNES).

SIR.—The men are busy securing and clearing up the engine-shaft, making every necessary preparation for the engine, which will be put up when ready. The rich and profitable Wheal Kitty, West Kitty, and New Kitty lodes pass through this mine, and high hopes are being entertained here by respectable mine agents and practical miners that success similar to what has followed in Wheal Kitty and West Kitty will be the result in South Kitty.

This mine is situated right in the arms of the three Kittys, and everything about it is favourable for a rich and profitable mine. Two lodes of great promise have been already laid open in the engine-shaft by a former party and a parcel of tin sold. This party failed for want of machinery. A first-class company, consisting of London and Cornish gentlemen, have taken this concern in hand, fully determined to do their best to make it a good mine. May 30. E. TREGELLAS.

KIT HILL, AND THE NEIGHBOURHOOD.

SIR.—Several correspondents have mentioned in the *Mining Journal* the progress of mining in this district, and although it is somewhat out of the way for railways there is no part of Cornwall deserving of more attention, from the fact that important discoveries of mineral are being made from new developments. The remarkable riches of the Devon Great Consols Mines, on the Devonshire side of the River Tamar, caused search to be made for the same or similar lodes on the Cornish side and of similar formation. There is no district in England where mining would pay better. Devon Great Consols Mines have produced upwards of 3,500,000*l.* in the space of 38 years, and there is to be seen at Benny Mine, within a mile of the village of Latchley, the produce of the greatest discovery in virgin ground that has taken place for many years. The ground teems with mineral.

If any investor or speculator in mines would take the trouble beforehand of visiting the properties they intended to embark in a great deal of anxiety would be saved. There are many new mines opening up in the neighbourhood of Latchley well worth seeing, but according to all accounts Benny will be a prize; in fact, as the agent of a bal said last month, "at Benny the mineral is found, but we have to sink deeper to get ours." This statement expresses what are facts to all.—London, May 30. E. B.

REPORT FROM CORNWALL.

May 31.—The first stage in the Dolcoath business is now safely over, and Mr. Mayne stands committed to take his trial. It is not very easy to understand the position taken by him and by his advocate since his confession, nor indeed is it of much importance making the attempt. It is sufficient for us now to know, so far as he is concerned, that the whole business will be enquired into in the proper court. The Camborne bench are to be heartily commended for the very rigid way in which they put their foot down in the matter of bail, fixing the sum at the amount involved in the alleged frauds. There is certainly not the slightest reason why any consideration should be shown, and if 12,000*l.* bail is prohibitive so it must be.

The next thing now is for the whole question of position and ways and means to be laid before the Dolcoath adventurers, and we take it this will be done without the least delay. It would be idle, of course, to call a meeting before the entire facts are fully ascertained. Whatever is done should be done as speedily as may be, but it is even more essential that it should be done thoroughly and once for all. The present uncertainty, however, must not be allowed to continue a day longer than can be avoided. It seems somewhat premature to speculate upon the further changes in the situation that may be caused by the acceptance by Capt. Josiah Thomas of the Rio Tinto management, which is understood to have been offered to him. Nothing that has happened has at all affected the estimation in which Capt. Thomas is held, nor is anything likely to do so, as defined by rumour, nevertheless the Rio Tinto offer is very tempting.

We are in full sympathy with the action taken at Wheal Basset with regard to the question of transfer reform. As we have already pointed out, no suggestion that has been made really quite meets the case. Assuredly it has been already proved that the numbering of shares by itself will not prevent fraud, though we are not prepared to deny that with numbering there is a likelihood of more rapid detection. Far better, then, wait and see if joint wisdom cannot devise some plan which shall be of universal application in Cost-book mines. Here is another nut for the Mining Institute to help crack.

We regard the proceedings at Devon Great Consols in their ultimate issue as highly satisfactory. It is no use fighting against low prices of metal, the only policy is to wait, and when a mine gives every encouragement in its natural resources for the adoption of this line of action, whatever little discouragement there may be in the present, there is abundant hope for the future; and what is especially satisfactory at Devon Consols is the manner in which the expectations of the development of tin in depth are being realised. We see no reason whatever why the Tavistock district should not restore Devon to its ancient tin-producing fame, now so long lost. For one thing the work could not be in better hands.

The Earl of Mount Edgcumbe, who is this year President both of the Royal Institution and the Royal Polytechnic Societies, has given a very practical address at the meeting of the former society covering a very wide field. We quote some of the passages particularly referring to mining and allied pursuits. Speaking first on the yield of tin, his lordship said:—The amount of tin (ore) produced annually in Cornwall during the last 10 years had, roughly speaking, averaged a little over 14,000 tons, varying from a maximum of 15,000 in 1877, to a minimum of 13,000 in 1881; and the price had ranged from 36*l.* to 95*l.* per ton. The produce in 1882 was 14,170 tons, or about the average of the last 10 years, and represented 9420 tons of metal, Cornish tin ore yielding generally about 65 per cent. of metal. Since 1825 the production of tin throughout the world had increased more than threefold, and last year appeared to have been about as follows: Cornwall, 9400 tons (metal); Banca and Biliton, 8599; Straits of Malacca, 11,705; Australia, 10,067; Peruvian, &c., 500; total, 40,271 tons. It was difficult to say what value the Cornish contribution represented, but he supposed to put it at over 900,000*l.*, as the price of metal varied during the year from 97*l.* to 114*l.* a ton, and now stood at, he believed, about 100*l.* Great improvements in mining during the last quarter of a century had been the wire ropes, the use of the skip in hauling, improvements in dressing—more especially the adoption of the Brunton calciner—and the boring machine, while the use of dynamite had been of great value. There could be no doubt that from improved ventilation, greatly due, he believed of late, to Mr. Teague, the health of the miners had suffered less than formerly. Those practical details, indeed, came rather within the scope of some of the sister societies. But it was strictly within the province marked out for itself by that Institution to honour those among the sons of Cornwall whose energy and talents had contributed by such inventions to the benefit of their fellows, and when they thought of what they owed to those who led the way in the development of steam machinery, they could not but rejoice to know that the services of a great Cornish engineer were at length being recognised, not only in Cornwall but throughout England. It would be impossible for him to attempt even to recapitulate the multifarious inventions which the ingenious and daring spirit of Richard Trevithick produced or prepared for others to complete. A summary would fill a volume. But Trevithick was not the only Cornish engineer. Sir Goldsworthy Gurney, of Bude, a man of modest and retiring habits, claimed the invention of the steam jet or blast, which had done so much for locomotion in this country, and he hoped that his name would not be forgotten among the scientific worthies of the county. Cornwall had always been noted for its practical engineers, and in these days of rapid locomotion, he thought it would be merely

fair to note one of those things which are most necessary for safe travelling. The earliest invention of the vacuum brake bore the honoured name of Major Glynn Bolitho, and he thought the most ingenious mechanical brake was also invented in Cornwall by Mr. Parke Smith, and was being tried, he believed, with success on the Liskeard and Caradon Railway. With regard to mining, it would ill become him to refer to anything that had caused excitement in connection with one of their largest mines, but, as last year he alluded to the turbulence that had occurred in that neighbourhood, he thought they might congratulate themselves that, owing to the conciliatory influences which must have been brought to bear, nothing in the nature of overt turbulence, which had been feared, occurred. But there was still a question connected with the interest of mining which would afford a problem which would have to be solved. They had had an instance in which misplaced confidence had led to fraud on the part of a man holding an important post, but he felt confident that some security would be given to shareholders in future that would prevent a recurrence of anything of the kind again.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

May 21.—Coalmasters in South Staffordshire accept Mr. Haden Corser's award, referred to last week, with the best possible grace under the circumstances; but it is not pleasant to have to go on paying the old rate of wages for a couple of months while selling prices are reduced, for it is impossible to get them back again to their former level. It is anticipated that quickly circulars will be out from the Cannock Chase collieries announcing the official advent of summer prices. There should be a drop upon the present "list" of 1*s.* in coal and 6*d.* in slack. Actual selling prices of deep coal at date of the best firms are—best deep, 10*s.*; deep one way, 9*s.*; kibbles, 8*s.*; rough slack, 5*s.* 6*d.*; and fine, 3*s.* 6*d.* per ton. Inferior firms are accepting 1*s.* per ton less than these figures as to coal, and 6*d.* per ton less as to slack. The state of the pig and manufactured iron trade is unaltered upon the week.

The directors of the Pelsall Coal and Iron Company in their annual report for the year ending March 31 state the net profit is 9968*l.*, which, added to the amount brought forward from last year, shows a favourable balance of 18,568*l.* An arbitration in which the company have been engaged concerning the legality of their abandonment of the Short Heath Colliery, which they declared could no longer be worked at a profit, has resulted in an award against the company for 6844*l.* After writing off this sum, together with the preliminary expenses of the arbitration and bad debts, 9772*l.* is left to be carried forward this year. The directors do not think it prudent to declare a dividend.

In the Cannock Chase Coal Trade a dispute has cropped up as to what is the correct interpretation of the sliding-scale now in vogue, and the question has been submitted to arbitration. The clause upon which the dispute has arisen is, "The average price per ton for the twelve preceding weeks shall be ascertained and certified, and the rate of wages be advanced or reduced according to the following scale:—When the average selling price reaches 6*s.* 1*d.*, then the stint shall be 2*s.* 4*d.*; when the average selling price reaches 6*s.* 5*d.*, then the stint shall be 2*s.* 5*d.*; and so on, every advance of 4*d.* in the average selling price of coal entitling the workman to a further advance of 1*d.*, up to a certain limit." Under this clause the masters now call upon the men to submit to a reduction of 1*d.* per stint. The men argue that the scale rises or falls by stages of 4*d.* in the selling price, and that the average price not having fallen to 6*s.* 1*d.*, they are still entitled to 2*s.* 5*d.* The arbitrators have been unable to agree, and Alderman Avery, of Birmingham, has declined to act as umpire. This position is now to be offered to Mr. Alfred Young, barrister, of Birmingham.

The miners' strike in North Staffordshire still continues, the union and non-union men are alike receiving considerable pecuniary aid.

REPORT FROM DERBYSHIRE AND YORKSHIRE

May 31.—But little change has taken place lately in the mining districts of Derbyshire and trade generally is tolerably good for the time of year. Lead mining has gone on much as usual, seeing that it does not fluctuate with the seasons the same as coal mining. A fair number of mines are being worked, but it is only a few that can be said to be paying. Still men work them in some instances for mere wages and are contented, whilst some three or four persons do well. The Coal Trade is not so good as it was some two or three weeks since, the weather having interfered with the consumption of house coal. This has been more especially the case as regards the London market, to which more coal is sent from Derbyshire than from any other county or even two counties, one company alone sending at the rate of nearly 1000 tons a day, whilst there are several others that forward from 500 to 800 tons daily. Prices of coal, too, have also gone down, as the result of the diminished consumption. Silkstones now sell at 23*s.* per ton, although there is one firm in Derbyshire that sells the same quality of coal at 20*s.* 6*d.* per ton, and why there should be this difference is by no means easy to understand. Most of the pits in which the principal part of the coal raised is for household purposes are now going on short time, and it is by no means improbable that before long the men will not be able to obtain much more than four days' work weekly.

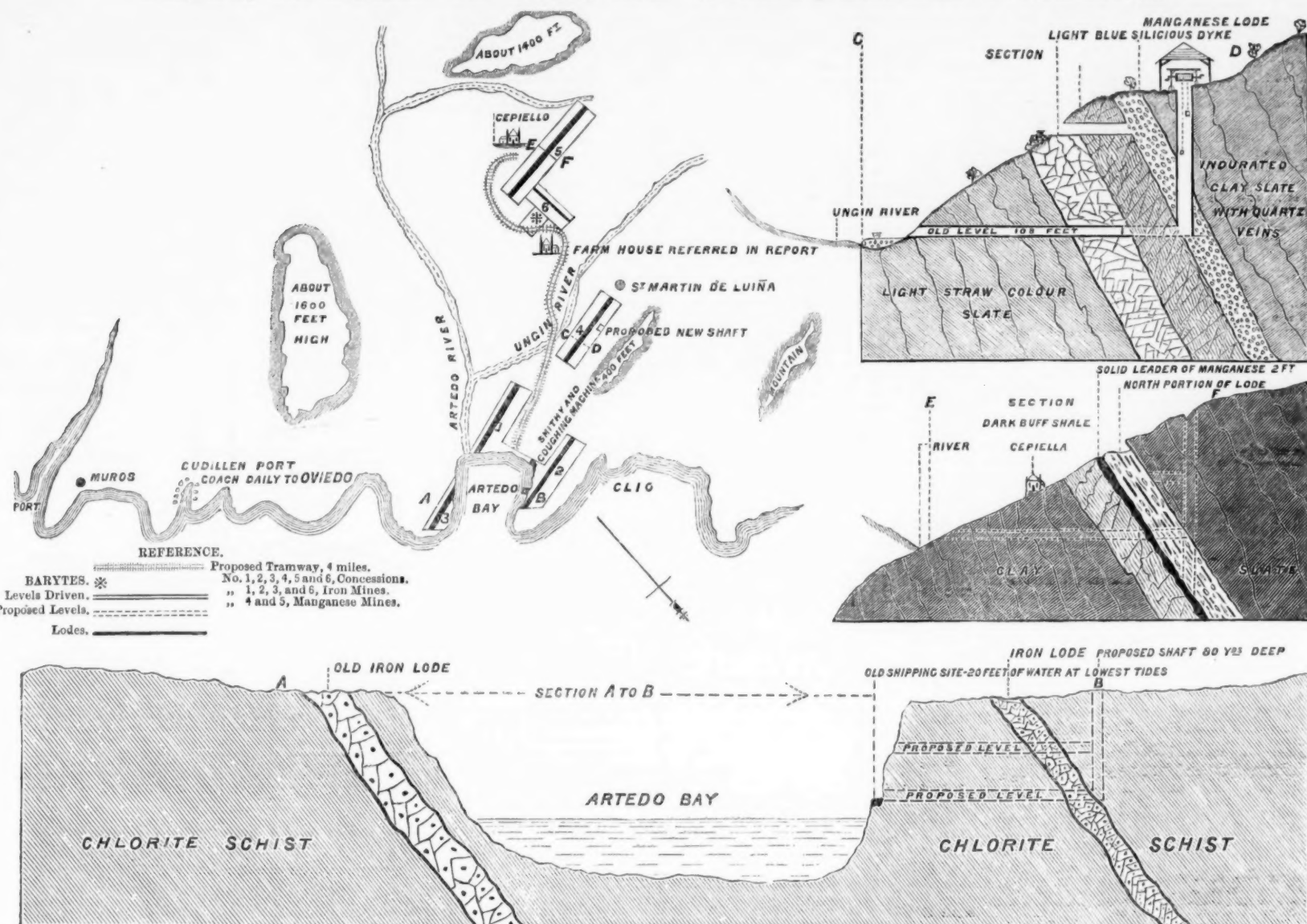
This will give the men an opportunity of enjoying what they were agitating for some time since, and which is now being considered by a conference of miners at Manchester—the limitation of the production of coal: so that prices of it must go up, and wages follow in the same direction. But so far it appears that with the diminished consumption prices of coal are likely to go down and miners' wages reduced. Colliery owners are not at the present time doing more than paying their way, and even this position is not likely to be maintained much longer unless the men submit to some reduction. Steam coal has gone off rather better of late, the railway companies being now larger consumers. The iron trade of Derbyshire is in a tolerably healthy state, for the production has been well kept up, a good deal being sent away to South Staffordshire for the rolling mills. The demand for rolled iron is rather moderate, but the foundries appear to be working well, and there are some good orders in hand for pipes and heavy castings.

In Sheffield trade is somewhat uneven just now, for whilst several branches are doing well others are barely able to keep their men going. The heavy branches are those that are most favourably off, so that there is still a large consumption of both iron and steel. The number of furnaces in the district is small, so that a large proportion of the pig-iron has to be imported from a distance, the hematite principally from Cumberland. Bessemer steelmakers have been doing well, more particularly as regards billets, large quantities being now used for cutlery tools and other purposes instead of crucible steel, being less costly. Not so much is being done in Bessemer rails, owing to the low prices which orders have to be taken at, and if they have to be exported the carriage to a sea-port, instead of leaving a small margin of profit, leads to a little loss. Home work is therefore that which is most cultivated by the Sheffield manufacturers, who have been doing tolerably well of late in railway springs, tyres, axles, and wheels. In crucible steel there is nothing like activity, although the leading works in the locality has nothing to complain of. Some of the cutlery houses are favourably off for orders, whilst others are just able to keep their hands going. The file trade, so far as demand is concerned, is good, but a great many hands are on strike, and unless work is shortly resumed stocks will be nearly exhausted; there is, however, a strong belief that a settlement will shortly be come to and work resumed. In edge tools, sheep-shears, razors, and light garden and agricultural implements, an increased demand has sprung up. The foundries are doing rather better, but the engine-works are by no means busy. At Attercliffe, Brightside, and Rotherham the works, as a rule, are doing a steady trade.

On Monday a special conference of miners' delegates from all parts of the West Riding was held at Barnsley. The meeting passed resolutions in favour of limiting the production of coal, and appointed a delegate to attend the conference, which commenced its sittings at Manchester on Tuesday. It was also agreed that every support should be given to the Employers Liability Amendment Act and to the proposed Mines Regulation Act. The conduct of the

COAL, AND THE OVER-PRODUCTION QUESTION.—It is evident that the views of the colliery proprietors and of the colliers upon this question are not identical. At a national conference of miners, held at Manchester on Wednesday, a communication was read from the secretary to the Mining Association of Great Britain, who stated that the Association could not accede to the request which was made last month by the conference at Birmingham that the Association and a deputation from the workmen should meet to discuss the desirableness of arranging some method of regulating the production and output of coal. Regret was expressed that the employers had declined to consider the subject. In order to put a stop to over-production, "the bane of the coal trade," the miners of the United Kingdom were recommended to restrict the output. It was reported that the work of organisation was going on satisfactorily in many districts, and it was resolved that still stronger efforts should be put forward to secure union, "so that justice might be got from the employers."

ARTEDO, ST. MARTIN DE LUINA, AND CEPIELLO MINERAL CONCESSIONS.



ARTEDO, ST. MARTIN DE LUINA, AND CEPIELLO MINERAL CONCESSIONS.

After negotiations extending over more than 12 months Messrs Marshall, Stevens, and Co., of Liverpool, have now succeeded in finally securing the above mentioned very extensive mining areas, which are all in the vicinity of the natural shipping port of Artedo, in the province of Asturias, north of Spain, and held direct from the Spanish Government in perpetuity, entirely free of royalty, and subject to an annual rent of only 80*l*. These concessions have been fully examined on behalf of Messrs. Marshall, Stevens, and Co. and their friends, by Mr. Edmund Spargo, with the following eminently satisfactory results. He says—

Artedo, St. Martin de Luina, and Cepiello Mineral Grants.—In accordance with your desire and instructions I have visited and carefully examined the above mentioned properties, and I have now the pleasure to submit to you the following observations as my report thereon:—In order to ensure distinctness in treating the numerous characteristics of these important concessions I propose to sub-divide the inductions of my inspection in the following manner:—1.—Situation of the properties, and their geological character. 2.—Extent, and how held. 3.—Artedo Iron Mines. 4.—St. Martin de Luina Manganese Mines. 5.—Barytes Mines and Micaceous Iron Mines. 6.—Cepiello Manganese Mines. 7.—General facilities for expeditious and economical development, transport, and shipment. 8.—Estimated capital required. 9.—Probable results. 10.—Comparative quality and quantity of ores, and demand. 11.—General Summary.

The concessions constituting the mineral areas forming the subject of this report are situated in the province of Asturias, on the north coast of Spain, and located on the confines of Artedo Bay, Artedo and Uncia Rivers extending inland in a south-western direction up the valley of St. Martin de Luina, and over the northern escarpment of the Argoma Mountains to the Cepiello Manganese Mines, a distance of four miles from the natural port of Artedo; their respective locations will be better understood from my individual description of them.

Geological Formation.—The rocks of which these giants are formed are of the Silurian series, consisting mostly of a dark straw colour clay-slate, except those forming the northern cliff of Artedo Bay, which are of a grayish green colour (a chloritic schist), the whole of which are more or less changed in character in the immediate vicinity of the lodes, being more felspathic and argillaceous, and in various parts traversed by lightish-gray trap and quartzose dykes. The general formation is one of the most congenial for the production of high-class ores, not being of that compact and dense kind in which large bodies of minerals are seldom met with.

When the leases of the concessions which you have applied for are secured, they will embrace, including those already in your possession, about 2,800,000 metres, or (say) 600 acres, and be held direct from the Spanish Government in perpetuity, absolutely free of all kind of royalty or dues, and subject only to the almost nominal annual rent of about 80*l*., and as long as this sum be duly paid the concessions will remain indisputably yours.

Artedo Iron Mines.—These are situated in the immediate vicinity of Artedo Bay, the old workings being directly in front thereof, and only about 200 yards from high water line the lode appears, so far as I could judge from the present dilapidated state of the workings, to be of great width, probably 20 ft. or more, having a longitudinal bearing of a few degrees south of west, with a slight inclination northwards. This lode seems to crop out in the cliff on the south side of the bay, about a quarter of a mile east of the old workings, from which the ores could also be extracted with great ease and rapidity, and placed f.o.b. at a trifling cost. The extraordinary width of this lode, combined with the richness of the ores, and their peculiarly suitable nature for the manufacture of the best description of steel attracted the attention about 12 years ago of some of the native smelters or ironmasters, whose appreciation of the high character of this ore were evinced in the great cost they incurred in excavating, and in one place actually tunnelling through solid rock for a considerable distance along the north side of the cliff in order to lay down a tramway to a convenient deep water place of shipment in the bay, whence they shipped the ores to their works. I was informed, however, that the capacity of their works was comparatively small, requiring only a very limited quantity of ores to keep them fully supplied, hence the cost of raising the ores, management,

shipping, and other incidental charges always consequent on such a small scale of operations would of necessity be ruinously high.

Previous to the total suspension of these mines they were for some time I understand carried on upon the tribute system, with scarcely any supervision by the owners, a mode of mining seldom if ever found permanently remunerative even in this country, however productive the mine may be. In this case, arising from the natives' anxiety to earn a little extra wages, however temporary, the lode was worked away indiscriminately, without regard to the necessary pillars or supports for the surrounding and superincumbent strata, and probably also from want of ordinary mining skill the workings soon collapsed, which at the time, owing to the depressed state of the iron market, remained afterwards in abeyance. The fact, however, of their being developed under the adverse circumstances just mentioned, and their produce (about 20,000 tons) having been taken into other rich iron mine districts, with the striking resemblance of the ores to those of the famous Bilbao Mines, convinced me of their exceptional value, especially in combination with the ease and rapidity with which they can be raised and shipped if developed upon a commensurate scale. A sample of ore obtained from the refuse of the old workings on this lode, according to analysis, yielded nearly 53 per cent. of metallic iron, and was found exceptionally free from all deteriorating ingredients. I consider that the great facilities for mining afforded, in consequence of the friable nature of a large portion of this ore, and the comparative softness of the embedding strata (if developed upon the small scale of only 150 tons per diem) the ores could be placed f.o.b. at an inclusive cost of not exceeding 1*s*. 6*d*. per ton, and by the end of the first year's active operations there should be no difficulty, I think, in increasing the output to at least 300 tons a day. Assuming this lode to be of similar value at the point where it crops out in the southern cliff, and where it may be mined to a depth of nearly 300 ft. before high-water line will be reached, corresponding results may also be expected from this mine.

North Lode.—I now come to the specular hematite lode on the opposite side of the bay, which I found naturally exposed at a point about 200 yards from the top of the cliff, and about 300 ft. above high-water line. This lode as yet only presents itself in width to about 5 ft. embedded in a chloritic schist formation, and appears to run in an east and west direction, with a corresponding dip northwards to that of the strata. The opening out of this lode to test its width and value should be proceeded with immediately the land applied for has been secured, as I have no doubt but that it will be found to be of much greater width when fully exposed, but assuming the lode to be (say) 6 ft. wide only, or just as now seen, the cost of mining the ore and placing it f.o.b. should not, I estimate, exceed 2*s*. per ton. It can be worked to a great depth by day levels or cross-cuts from the face of the cliff. Enormous quantities, however, could, I have no doubt, be obtained by open cast workings while the day level cross-cuts were being driven in to intersect the lode for still more extensive operations. The ores could be placed alongside vessels by a gravitation incline plane—i.e., the usual endless wire ropes, drums, and trucks direct from the workings. These iron mines being so close to a shipping site, and the fact of the ores cropping out to the very surface, with their proximity to each other and their favourable surroundings, whereby their development will be commanded by the same management and plant, must, I consider, render them one of the most valuable iron properties in the north of Spain. A sample of the specular ore obtained from the very outcrop of this lode yields by analysis upwards of 48 per cent. of metallic iron; as this sample, however, could only be an inferior one I anticipate a much higher percentage of metal at a deeper point.

St. Martin de Luina Manganese Mine.—These mines are situated about 1½ mile south-west of Artedo Bay on the north bank of the Uncia River. The workings on this lode have been chiefly confined to the sinking of a shaft between 70 and 80 ft. deep, and the driving of a day level from a point about 70 yards from the river northwards into the hill, with a view to unwatering the shaft and to afford more ready exit of the ores direct to the proposed new dressing-floors at the entrance of this level, as the latter is already driven upwards of 100 ft.; the forebreast being within 50 ft. of the lode, it should be pushed forward as fast as possible as it will afford great facilities for extracting the manganese from the lode to the depth of the present shaft. I was unable to inspect this lode in the workings in

consequence of their being full of water, but I understand it is about 20 ft., which I found running in an east and west direction, and dipping northwards, as per sketch. Although the working have only been carried to a depth of about 70 ft., upwards of 80 tons of rich oxide of manganese have been obtained and sold, thus proving, I consider, beyond question, its extraordinary productiveness even at so shallow a depth as 25 yards. The strength of this great lode shows itself in the buff shale which accompanies it on the footwall for over a mile to the west, and beyond St. Martin's Church, by the upthrows of very rich manganese at various places along the back of the lode. To develop this mine below the present workings resort to water-power will have to be made, as the present mode of operation (by manual labour), however productive the lode, could hardly be expected to be attended with much success. A very small outlay for this purpose, however, would suffice, as the ground is very lightly watered and easily worked. I consider that within six months after the day level has been extended to the shaft regular and progressive shipments may be relied upon. A new shaft should in the meantime be sunk at a point about 150 yards west of present workings so as to intersect the lode at (say) 60 yards from the surface, as also the most approved appliances for dressing the ores should be forthwith erected near the river, unless it should be deemed more advisable to concentrate all the surface works and dressing machinery at Artedo Bay, where the two rivers (Artedo and Uncia) would afford constant and ample power for all purposes. I estimate that at the end of nine months from the time the new shaft intersects the lode the sales of manganese from this mine should be equal to at least 200 tons a month, which would be further augmented as the workings become more fully developed.

Micaceous Iron and Barytes Mines.—This iron lode has been exposed in an opening made for the purpose on the south side or escarpment of the Sierra del Argoma Mountains, about 600 ft. above, and about half a mile south of the Uncia river, and 3½ miles from Artedo Bay; the lode which is embedded in a lightish straw colour schist is several feet wide, running almost due north and south with a dip east of about 2 ft. in a fathom. This ore is exceedingly rich, yielding upwards of 61 per cent. of iron. There is at present hardly sufficient done upon this lode, however, to enable one to offer a reliable opinion as to the probable quantity or cost of production, and as it could not be worked to much (if any) advantage without the aid of a tramway to afford direct means of transport to Artedo Bay, I will not at present dwell upon this matter. I should say, notwithstanding, that it can be developed to a great depth by day levels, and as the ore is very soft and easily dug out it may become valuable to work so soon as the proposed tramway to the Barytes and Cepiello Mines has been laid down.

Barytes (Sulphate of Barytes).—I have now reached one of the most extraordinary discoveries and occurrences that has ever come under my notice. This mineral (barytes) crops out in large dykes, commencing from near the farmhouse at the base of the north slope of the Argoma Mountain, and extends apparently several hundred yards up this mountain to within about 150 to 200 yards of the micaceous iron lode. It is difficult to define with much accuracy any of the dykes or courses, but as far as can be judged at present they appear to traverse the mountains in a north-western direction. Near the farmhouse above mentioned, the fences are more or less built with this valuable mineral, a sample of which taken quite promiscuously proves by analysis to be almost pure sulphate of baryta, giving as much as 58.79 per cent. of barium and 41.19 of sulphuric acid, showing only a mere trace of lime and carbonic acid with absolutely no iron, therefore proving this barytes to be equal to the best ever discovered in any part of the world. This mineral is found in such extraordinary abundance, and placed in so favourable a position for excavating, that I estimate 1000 tons a month could at once be readily quarried at a cost of 1*s*. per ton, or delivered f.o.b. on the completion of the tramway at (say) 1*s*. 9*d*. to 2*s*. per ton; this quantity could be increased almost indefinitely as it seems to me to be so immense that the output need only depend upon the number of hands employed. There cannot, I think, be any possible doubt regarding the lucrative nature of this business by the erection of extensive mills at Artedo Bay, and with the aid of the never-failing water supply available there. The only capital (except, say, 300*l*.) required for this business is for the erection of mills for grinding, with the other necessary requisites for shipping the raw and manufactured articles at Artedo Bay.

Cepiello or South Manganese Lode.—This lode has been opened out, or rather cut through on the south slope of the mountain just referred to near Cepiello Farm, and from this small excavation alone upwards of 20 tons of manganese were obtained. This is a well-defined lode about 20 ft. wide, carrying a solid leader of manganese on the footwall of about 2 ft. in width, the remaining 18 ft. being made up of small veins of friable quartz, and a mixture of the surrounding strata traversed throughout with steel-gray strings from 1-16th of an inch to 3 in. wide, and numerous nodules of manganese of the richest quality, altogether forming a champion looking lode, the embedding rock being of the most congenial nature for the production of large quantities of manganese, and such as I feel satisfied will be found to enrich the lode as the workings proceed downwards. This lode, as will be observed from accompanying sketch, can be developed to a great depth by adit or day levels without the aid of any pumping or winding machinery, and the site with its surroundings embrace otherwise exceptionally favourable facilities especially for the preparation of the ores for the market, ample water for dressing purposes being in close proximity to the entrance of the proposed day level. I calculate that within nine months after the level intersects the lode this mine should be in a position to yield at the very least 250 tons of manganese per month, and which could be augmented from month to month as the workings progressed. In the meantime, however, progressive quantities would be obtained from the shallow workings.

The general position and conformation of the land these concessions embrace afford unprecedented advantages for the most extensive, rapid, and economical development of the minerals they contain, which, together with the abundant supply of water-power available below the junction of the Uncia with the Arto Bay River, and the close proximity of the shipping facilities, the well sheltered and deep water bay of Arto Bay offer, in my opinion, not only divest these mines of all speculative elements, but place them beyond the difficulties attached to the principal great mines of Spain, and should in consequence of the enormous amount of working capital they dispense with enable you to bring them into a gigantic scale of profitable operation in an incredibly short time, with a comparatively trifling amount of capital.

Working Capital.—I estimate, consequent on the natural conveniences just mentioned, that the following respective outlays for local purposes will suffice:—

Arto Bay Mines.—To provide plant and open these mines sufficiently to ensure an output of 300 tons of ore per diem for 283 working days in the year	£5,500 0 0
St. Martin de Luna Manganese Mines.—For the opening out of these mines with the required machinery, and to enable 200 tons of manganese to be shipped per month	4,000 0 0
Barytes.—To ensure 600 tons or upwards per month to be raised	300 0 0
Cepiello Manganese Mines.—To open out this mine by driving proposed levels, shafts, &c., with complete equipment of plant equal to an output of 250 tons per month	3,000 0 0
Barytes Mills.—For the erection of grinding mills, with 10 pair of 5 ft. 6 in. diameter French Burr stones, including an overshot water-wheel 4 ft. by 6 ft., with all other necessary appliances for grinding 200 tons per month	4,000 0 0
Tramway.—For construction of tramway (with 30 lbs. steel rails to the yard) inclusive of entire equipment	4,500 0 0
Shipping Jetty.—For the construction of a jetty, and equipment or repair of existing tramway, and enlarging loading site	850 0 0
Local Management.—Management and incidentals during first 18 months	2,000 0 0
	£24,150 0 0

Probable Results.—I estimate that upon the completion of the works (say, within 18 months) contemplated with the outlays enumerated, the production and profit would be as follows:—

Manganese Mines.—Manganese (say) 150 tons exceeding 70 per cent., ditto 300 tons, ditto 60 per cent., allowing only 3s. 2s. per ton, being nearly 25 per cent. below the average price per ton of the imports for 1880, as shown in the latest published Government Returns, would give on 450 tons at 63s.	£1,417 10 0
Deductions.—Mining and delivering to dressing floors, 15s.; dressing and making ready for market by machinery (driven by water-power) 8s.; transport to ship, 1s.; incidental and local management, 1s. 4d.; commissions on sales, &c. (say) 3s. 2d.; freight to the River Mersey, 9s. 6d. = Total deductions, £1 19s. per ton	877 10 0
Net profit (per ton, £1 4s.) per month	£540 0 0
Barytes.—Ground barytes 200 tons per month, 65s.	650 0 0
Deductions on ground barytes.—Raising and delivering to mill 200 tons per month, 2s.; cost of grinding per ton by water-power, 15s.; cost of sacks or cask per ton (or sacks much less) 10s.; shipping expenses (local) 1s.; incidentals and local management, 1s. 6d.; freight to the River Mersey, 1s.; commissions on sales, at 5 per cent., 3s. 3d. = Total deductions on 200 tons of ground barytes (per ton, £2 3s. 9d.)	437 10 0
Net profit (per ton, £1 1s. 3d.) per month	£212 10 0
Raw barytes 400 tons per month, £1 5s.	500 0 0
Deductions.—Quarrying or mining and placing f.o.b., 2s.; incidentals and management, 5d.; commissions on sales, 5 per cent., 1s. 3d.; freight to the River Mersey, 9s. 6d. = Total deductions per ton on 400 tons, 13s. 3d.	265 0 0
Net profit per ton on raw barytes, 11s. 9d. per month	£235 0 0
Arto Bay Mines.—I estimate that after six months' development that there would be no difficulty in putting out 350 tons of ore per diem from the two lodes at a cost of south lode, 1s. 6d. North or spicular hematite lode 2s. on (say) an average of 1s. 9d. per ton f.o.b. estimated on 283 working days in the year give 84,000 tons at 15s. delivered in South Wales, which is greatly below the average value of Spanish ores imported	63,000 0 0
Deductions.	
Cost of mining and delivering f.o.b., 1s. 9d.	£7,350 0 0
Freights to South Wales, 8s. 6d.	35,700 0 0
Commission on sales, 6s. 9d.	3,150 0 0
Incidentals and management, 0s. 3d.	1,050 0 0
Total deductions per ton 11s. 3d.	£47,250 0 0
Net profit per ton 3s. 9d., which on 84,000 tons gives a total profit of	£15,750 0 0
Recapitulated results, per annum.—Manganese	£5,480 0 0
Barytes (manufactured)	2,500 0 0
raw	2,820 0 0
Arto Bay iron	15,750 0 0
Net profit per annum	£27,600 0 0

A reference to the mineral statistics for 1880 (the latest published) will demonstrate the fact that the average value of Spanish iron ores imported into this country are more than double the average value of British ores, and even exceed the celebrated rich red hematites of Cumberland, as will be seen from the figures of the produce and imports for 1880, which were:—Cumberland red hematites, 1,491,383 tons 18 cwt., yielding 1,154,600 l. 13s.; Spanish ores imported, 2,278,962 tons, yielding 2,270,462 l., fraction to 1 l. per ton. The demand for the ores specially produced from these mines may be inferred from the following facts showing the amazing increase in the imports of Spanish ores for 1880 as compared with 1876:—The total imports of iron ores from all parts for 1876 were only 672,235 tons, as against 1880, 2,632,601 tons; of this quantity Spain alone supplied 2,278,962 tons. The imports of manganese in 1880 were 16,085 tons, as against only 8914 tons in 1876. I understand that the demand for and imports of these ores are still rapidly increasing. With regard to the demand for manganese, it is generally believed that the useful properties of this ore is only just now beginning to be fairly appreciated, as evidenced by the constantly new uses to which it is being applied, besides for the manufacture of the best description of steel, the conversion of phosphoric pig iron into steel, steel bronze ship propellers, and particularly for chemical, bleaching, pottery, and numerous other important purposes, therefore the increasing demand is not only likely to continue, but prices will as a matter of course advance in proportion. The uses to which sulphate of baryta are applied are too well known to need any remark from me, especially when it is of the peculiarly valuable quality found in this property, and under the circumstances previously referred to.

The comparative importance of the proximity of these mines to Arto Bay will be gathered from the fact that the principal requisite (besides an abundance of high class ores) necessary to constitute a highly profitable mine in Spain, is a convenient place of shipment. The singularly advantageous position of, and the exceedingly small amount of capital required for the development of these concessions against most others in Spain, will be forcibly impressed from the fact that of the capital of 500,000 l. of the Bilbao Iron Ore Company (Limited) 220,000 l. had to be set aside for the construction of a tramway (12 miles) and other shipping conveniences; these mines are also subject to a royalty of 1s. 3d. per ton. The Spanish

Iron Ore Company's works are 6 miles from Iron (railway communication), and from suitable places of shipment 18 to 40 miles. The Carpio Mines Company, with a capital of 600,000 l., set aside 250,000 l. to construct a tramway (58 miles) and to afford shipping facilities. The famous Rio Tinto Mines and the Tharsis Mines are similarly burdened.

General Summary.—The leading characteristics of these concessions may be summarised as follows:—The superior average quality, extreme cheapness of mining, and practically inexhaustible supply of three leading ores or minerals—iron, manganese, and barytes. The great economy in employing water-power instead of steam on the spot for driving every kind of machinery. The ample supply of unskilled labour at a rate of wages less than one-half of what is paid in England. That the mines can be chiefly worked by day levels without the aid of pumping power. That the extreme limit of any part of the property is within four miles of Arto Bay shipping bay. That there are no engineering difficulties connected with the construction of proposed tramway, and that when completed the gradient will be such as to admit of the wagons running from any of the mines by natural gravitation to Arto Bay. The facilities afforded at Arto Bay for shipment of the ores in bottoms of almost any size.

The most prominent feature, however, connected with this property is, that unlike other mining enterprises its success is not dependent on the working of one mine alone, but is in my opinion amply assured from mineral already discovered in several, and the fact of the manganese which has been raised and cleaned under very adverse circumstances having been disposed of in the British market establish its commercial value beyond question, while the acknowledged high character of the iron, and extraordinary purity of the barytes, I consider abundantly demonstrates that there will be no waiting indefinitely for immense returns and consequent large dividends.

Cable-street Chambers, Liverpool, June 8.

Meetings of Public Companies.

THE CORPORATION OF SOUTH AUSTRALIAN COPPER MINES.

The second annual general meeting of shareholders was held at the Cannon-street Hotel, on Wednesday, The Right Hon. Lord HEADLEY, the Chairman, presiding.

Mr. SYDNEY A. COBBETT (the secretary) read the notice calling the meeting; the report and accounts were taken as read.

The CHAIRMAN said: It can never be a very pleasant duty for a board of directors to meet its shareholders on an occasion when a dividend is not forthcoming, and to me it is a remarkably unpleasant one. This is the first time I have ever had the pleasure of presiding at a meeting of this sort, and I must confess that the pleasure is very much marred by the fact of our not being able to announce a dividend on behalf of myself and co-directors. It always savours of "hope deferred," but your directors are very happy to tell you on this occasion that it is their opinion that it is a hope deferred which certainly need not "make the heart sick." The mines in which you have invested have "panned out," as the Americans say, in a quite equal to, if not exceeding, their most sanguine anticipations. The gist of the report, which you have all read, is simply this—that the realisation of our expectations is deferred from causes which it is always impossible to foresee. In this particular case absence of water is our stumbling block. Your principal mine would, at the present time, be realising a handsome dividend but for the absence of water. This defect we expect speedily to be able to remove. But, gentlemen, there is in this room one of your directors who has lately returned from the scene of action, who is primed with every possible detail that could be satisfactory to this meeting to hear, and I shall call upon him to make a statement to you of what his experiences in the colony were. I move that the report and accounts, now before the meeting, and which have been circulated amongst the shareholders, be and the same are hereby received and adopted. —The Hon. ASHLEY FORBES seconded the motion.

Mr. T. A. MASEY (director) said he had so much of interest to tell them that it was very difficult to know where to begin. He would explain exactly what the mines were, and then they could form their own opinion as to their great value. The Blinman Mine always was a very celebrated mine. It was celebrated for its immense amount of carbonate ores near the surface. These carbonate ores had been taken away, leaving large caverns, down to the 50 fathom level. They never had water there, nor did they in those days require water, as the ores wanted but little dressing, and they were smelted on the spot. They had now got to sulphuretted ores, which required to be dressed by water, and as the mines were situated on the top of a hill, the water ran off, and did not collect in the mine as was usually the case. But the deeper they went the more water they would obtain, as they would drain a larger area of country. They had been sinking the shaft 10 fathoms deeper in the hopes of getting more water from the lode. The shaft was not on the lode, but they had had to drive about 5 fms., and he expected that within the next fortnight they would receive a telegram to say that they had cut the lode, and got an increased supply of water. But, independent of that, they were deepening a well in a different stratum of rock, about half a mile away, which supplied all the township and the miners with water all the year round; and it was thought that by deepening that well sufficient water could be obtained to afford auxiliary power for all the purposes of the mine. He expected that well would be finished within a week or two. There had been some delay about it, as they could not purchase the pipes wanted, and had to have them made. From the moment they had more water the Blinman would be a profit-making mine, and dependent upon the supply of water would be the amount of ore which could be dressed. At the present moment they had the ore explored staring them in the face, enough to last them a year at the rate of 200 or 250 tons per month. If they could dress it, and if they could produce that quantity, at the present price it would give the company 10,000 l. to 12,000 l. a year profit; and it was simply a question of water when it would begin. He had made enquiries with regard to an American invention to dress ore with air and without water; he had seen the patent, and it seemed to him a feasible scheme, and, failing the water, they could try it. He had told them that in the Blinman Mine immense caverns had been taken away. The carbonate ores were formed in the Blinman Mine by the sulphuretted ore in a state of fusion below, and by the fumes ascending through the limestone formation; if there was such a large area of carbonate ore above, what must be the extent of the sulphuretted ore from which it was made? (Hear, hear.) The notion out there was that the quantity was very enormous. At present the lode was 15 ft. wide, and they had been driving through a lode which had been giving 7 to 8 tons of ore per fathom, which was an extraordinary yield, as well as an extraordinary width of lode, and they could obtain an output of 200 to 300 tons per month, as the area they had to work upon was so large. That was with respect to the bottom of the mine. In all the upper levels they could put tributaries to work. In the old workings they had a few tributaries at work; it was no use putting on more, as they could not dress the ore. Those tributaries were working at 10s. in 12. They could readily put 50 tributaries to work in the old workings at once, and if those tributaries earned 2 l. a week each, which they could do, they could also earn 2 l. a week each for the company. Therefore, the shareholders would see how, without any outlay on the part of the company, they could get 100 men at 50 men (and they might put on many more, be bringing in money whilst they were exploring and working down below. So he came back to the question of 200 tons per month as far within the mark if they could only obtain sufficient water. When sometime since there was a sufficiency of water the spirits of all concerned were very much raised; because whilst the little spring of water which was found lusted the company were making profits. But it only lasted about six weeks, and then gave out altogether. That was the position with regard to the Blinman. It was a very valuable mine, and it was a very valuable mine, and it was a very valuable mine. There was the ore, there was no mistake about it. They had driven levels through it, and most of the costs which they saw in the accounts, were costs for driving the levels; but the ore had not been taken away, so the cost was heavy compared with the results; but when they did begin to take it away the company would reap the benefit of the outlay. At Mount Rose they had a mine which had created a great sensation in the colony, and had, on the surface, all the characteristics of the old Blinman Mine. There was no reason why it should not turn out something like the Blinman. It had at present a very rich deposit of pipe ore, and this pipe of ore went straight down, and increased in richness as it increased in depth. In one part of the shaft they took away 700 l. worth of ore, and since he had returned he had received a letter stating that in another part of the mine they had taken out 500 l. worth of ore from one stop, and some of the stopes now were worth 40 l. per fathom. They were sinking an engine-shaft to follow the ore with another level. The present engine was a very small one, and it had quite as much work as it could do, and what they should like to-day was to put up a permanent engine to carry the mine down 50 fms., and do the dressing as well; but at the present moment their capital was somewhat circumscribed, and they must wait some little time before it could be done. The mine, at the present time, was making a small profit over its outlay. With respect to the other mines, they had prospected several of them, which were most promising, and only required more capital to make them profitable mines; but in mining there must be a certain amount of money spent in dead work, and unless this was done, the shareholders could not expect to get great results. Those mines were in abundance at present. There was one point, which had been mentioned in the report, with respect to the Government. The company held, and held still, a very large number of licenses, as well as leases; and although it would appear that the Government was putting pressure on the company at the present moment, that was not so, as the Government had behaved very handsomely to the company. Last year they brought in a Bill which renewed the company's lease at Blinman for 99 years at a very nominal rate; but some member of Parliament was good enough to get up and ask the Government why they did not insist upon the company working all the sections they had, and, therefore, there was nothing left for the Government to do but to give the company notice to go on with prospecting these properties. These most promising mines sections the company would take leases of, and the others, at the end of the year, perhaps, the company would allow the Government to take back; but, although the Government might take them back, that was no reason why, later on, the company should not acquire them again. The directors knew where they were, and they knew the value of them more than anyone else, and he did not anti-

cipate that the company would lose much by the Government for the moment taking some of the mines back, although, at first sight, some of the shareholders might be somewhat frightened. He did not know that he could mention anything more, but should be happy to answer any questions. He had briefly given them the position of the mines, which people in Australia, and he himself, considered to be extremely valuable, the only drawback being the temporary want of water. But this was a matter which need not cause alarm. Water must be got. In America they thought nothing of bringing water 30 miles, if necessary. The directors would have to go to some expense to obtain it, and the air-dressing machinery to which he had alluded might come to their assistance. In the meantime, they had one of the most valuable mines, probably, which had ever been discovered in South Australia. At the present moment it certainly ranked third. There were the Blinman, the Moonta, and the Blinman.

A SHAREHOLDER: And what about the Yudanamutana?—Mr. MASEY said it was worked for some years by the same persons who worked the Blinman. The Yudanamutana was a wonderful property; the ground and rocks around were very highly mineralised, and when first discovered the ore stood out of the ground 12 or 15 ft., the rock around having been worn away by ages, leaving the ore standing up, probably half the width of the room, and the company had simply to break it down and send it away, which they did in large quantities, and they followed the ore down until the drought came, and they were then obliged to give it up. The bottom had since fallen in, and he could not see how the workings were left off, but to judge from the lode, and from what had been done, it must be an exceedingly valuable property. But, independent of that, there were one or two valuable lodes on the surface which had never been touched, and which, if they were in Cornwall, would be a fortune in themselves. That was another property which the company were anxious to deal with, and the directors fancied they could make returns almost immediately at very remunerative rates. The only drawback was it was some distance from the railway, about one day's journey from Mount Rose, but it was not a very great matter, as it was only a matter of perhaps 10s. per ton in the carriage. The Yudanamutana property was one of the finest he had seen in Australia, and the surrounding rocks were congenial for mineral. He believed that for Mount Rose and Yudanamutana there was a great future.

Mr. MASEY, in reply to a question, said that in that district they got heavy tropical storms, and the water came down in great quantities, and probably the directors would find it advisable to dam the creek, but even that would not afford more than six months supply in the year, as the evaporation was very great in Australia. With the increased water from the cutting of the lode, from Saltia Well, and from the creek, he was satisfied the company would eventually get all the water they required. The company had the finest dressing machinery. There had been the greatest economy exercised both in London and Australia.

Mr. S. J. WILDE said he did not know the Government had the power to recall the mines.

A SHAREHOLDER also said he thought the leases were for 99 years. Mr. S. J. WILDE, referring to the probable necessity of more money being required, suggested whether it could be raised by 10 per cent. preference shares, which would rank as ordinary shares as soon as three consecutive dividends of 10 per cent. had been paid on the ordinary shares. He objected to the creation of permanent preference shares. He thought the sooner they raised the money and pushed on the works the better.

Mr. R. A. ROUTH (a director), in reply to one or two further questions regarding the condition on which the company worked the property, said he would explain one or two matters which seemed to have been a little misunderstood by the shareholders. When this company was brought out the capital was intended to be 250,000 l., in 12 shares of 20,833 l. each. The amount given for the mines which were to be purchased was 72,500 l. The whole of the shares were not taken up, and the consequence was that the amount of shares issued was 107,352 l., out of which the mine purchase was 72,500 l. Therefore, there was a very small working capital—£32,852 l.—sufficient to work out one of those large mines. The company had no less than 83 sections, which were granted by the Government. The directors did that which was most desirable. They worked the Blinman and opened out reserves, which was most important, and at the same time tested the Mount Rose Mine, and found an exceedingly valuable mine there. Beyond that they had tested six other mines, which were tested, and in all there were good indications of ore, and if there had been a market for the purchase of those mines, this company would have had considerable returns from this source alone. But it was impossible for the directors, with the limited amount of capital at their command, to do more than they had done, and it had been a matter of surprise in the colony that they had done so much. There were no debts on the other side. They had opened out reserves to the extent of 30,000 l. or 40,000 l., and also opened the other new mine to which he had referred, and they had done that with an amount of money which he was satisfied no other company could have done it, or would have attempted to do it. The company had been started two years, and the directors now came before the shareholders with a balance-sheet showing that notwithstanding there had been a debit balance against the mine of 13,000 l., which was no doubt represented by a larger sum in the reserves, and they had sufficient capital to work on with for the present. The question of further capital might come on for consideration at the next meeting, and if desirable there would be a further issue of shares; but, having opened out good reserves, the directors were confident that for the next six months they would not require any more capital. The directors had done a very great deal—more, in fact, than it could have been expected they would have done—with the mine. It took nearly 70,000 l. to open out the Moonta Mine before they paid a farthing, and the same was the case with the other mines. There had been only two large mines—the Blinman and the Moonta, and now this company had opened up the northern district, and there was every indication that the directors would be rewarded for their patience. But they must all pull together. (Hear, hear.) If they did not the money would be lost. But there was no doubt they had a most valuable property, and must work heartily together to make the Government and the shareholders satisfied. The company had money to work the whole fully. Up to the present they had only worked at the two mines, and the Government said that if the company did not put on a certain number of men to work at other mines in accordance with the terms of the licenses within a reasonable time other people would be allowed to do it. That was the position in which the company was. The opinion of the directors was that it was wiser to contract their operations and make two mines profitable, rather than to attempt to work 20 mines, which would take away the money which was necessary to work the two wells. (Hear, hear.) He believed the Blinman alone was worth more than 72,000 l., which had been given for the whole of the mines. In the Blinman, the Mount Rose, and the Yudanamutana the company had more than they could work out with the capital they had at their command, and at any time, if necessary, they could go on with the other mines, and as the district became valuable the concessions could be sold.

In the course of a discussion which ensued, the general opinion of the meeting seemed to be that every effort should be made to get a full supply of water, the operations should be confined to working the Blinman, Mount Rose, and Yudanamutana, and that, if necessary, further capital should be raised.

The resolution for the adoption of the report and accounts were then put and carried.

Mr. REGINALD SMITH thought that if all the mines were valuable they ought not to be given up, and deprecated the Australian authorities for giving the company to the strict letter of the law in regard to the stipulations in the licenses and leases.

Mr. WILDE then moved as a substantive motion, "That the shareholders view with regret the action of the Government with regard to some sections of the company's property, and that the directors be requested to apply to the Government to extend the time for the exploration of the same to at least five years on account of the large sum of money that had already been expended on several of the properties."—Mr. REGINALD SMITH seconded the motion, which was carried unanimously.

The auditors, Messrs. Quilter, Ball, and Co., were re-elected. The meeting then terminated with a vote of thanks to the Chairman.

TOLIMA MINING COMPANY.

An extraordinary general meeting of shareholders was held at the offices of the company, Finsbury-circus, on Wednesday (Mr. H. T. SANKEY, the Chairman, presiding) for the purpose of considering, and if thought advisable passing, a resolution making certain alterations in the Articles of Association.

Mr. W. W. HOLMES (the secretary) read the notice calling the meeting.

The CHAIRMAN said that at the last two meetings some of the shareholders expressed a strong opinion that the directors should take means to get a quotation for their shares on the Stock Exchange. This was not the first or second time the directors had tried to obtain it, and when the last application was made the directors were informed that they must make certain alterations in the Articles of Association in order to meet the requirements of the Stock Exchange authorities before a quotation could be granted. The alterations were really of no importance in the interests of the shareholders, but in the Stock Exchange they had had and fast rules which must be complied with before granting a quotation. He ran briefly through the proposed alterations, and showed that, with one exception, they were merely verbal alterations, and concluded by moving the following resolutions:—

- 1.—That in Clause 20 of the Articles of Association, after the words "the transfer of any share," the words "or being fully paid-up" be and hereby are added.
- 2.—That in Clause 31 of the Articles of Association, in the sixth line of that clause, the word "twelve" be and hereby is substituted for the word "ten."
- 3.—That in Clause 53 of the Articles of Association, the word "share" be and hereby is substituted for the word "share," and the word "share" be and hereby is substituted for the word "share." After non-payment of any call in respect of any share of which call notices (where required by these presents) shall have been given as aforesaid the board must, should it desire to forfeit such share, give notice to the registered holder thereof, that, in the event of the said call remaining unpaid beyond a further period of two months, the share in respect of which such call has been made will become liable to a declaration of forfeiture being passed against it; and after the expiration of said period of two months the board may by declaration forfeit such share.
- 4.—That in Clause 51 of the Articles of Association the word "twelve" be and hereby is substituted for the word "ten." And that the Articles of Association of the company be hereafter taken and read as altered by these resolutions.

Major A. G. DICKSON, M.P., seconded the motion.

Mr. G. S. HILL asked whether there was every probability of a quotation being obtained when the alterations were made?—The CHAIRMAN said there was no reason to doubt.—The resolutions were carried.

A SHAREHOLDER asked what was being done with regard to the Organon Mine? The CHAIRMAN said work was being done there, and this company was to have one-seventh of the gross profits; but no gross profits were being made there of any consequence. They had not got regularly to work yet, but they were making progress.

A SHAREHOLDER asked the cause of the considerable falling off in the Tolima returns for the last month?—The CHAIRMAN said there were two or three causes. The Easter holidays had interfered with the amount of work done. Then

they had spent \$3500 on a canal from the Claras into the Frias river to get a constant supply of water for the water-wheel. Another cause was that the assay value of the ore was not so good as they had been doing in the past. Mr. Hines asked the relative duration of the wet and dry months?—Mr. Hines said there were four seasons—two wet and two dry—which alternated. The CHAIRMAN said there had been a scarcity of water, which had also interfered with the working. A SHAREHOLDER asked whether the next month's returns were likely to go up? The CHAIRMAN said he hoped and believed so. The board had every confidence that the returns were not going to fall off further. As a matter of fact, the mine never looked better. Mr. POWELL said the average of the mineral for the last four or five months had been quite exceptional. The difference in the average standard of mineral had been 214 against 450 and 513 some time ago. The large bunch of mineral in the 60 had been continuing down strong, and it would be understood when the 70 was driven far enough. There were other good parts. In the 20, in the south-west, where there had not been a speck of mineral for eight years, there was already a good branch of mineral. This was the pioneer level in the west of the mine; it was under the old Spanish workings, where a rich lode was known to exist. A SHAREHOLDER asked whether the invoices had realized the estimated value?—The CHAIRMAN said there had been a surplus in every case. In 10 months the excess of realization over estimates had been 2500. (Hear, hear.) A SHAREHOLDER expressed the hope that no attempt would be made to form a reserve fund till the arrears of interest on the A shares had been paid, which he felt ought to be accomplished in nine months. The CHAIRMAN said the time was not yet arrived. When it arrived the subject would receive the full consideration of the board. After some conversation the meeting broke up.

ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices of the company, Finsbury-circus, on May 25. Mr. WILLIAM MARTINEAU, M.I.C.E., in the chair. Mr. J. ARTHUR MORGAN, F.G.S. (the secretary) read the notice convening the meeting. The reports and accounts were taken as read. The CHAIRMAN said: Gentlemen, before I move the adoption of the report, which we lay before you to day, I shall have but very few words to say. You are all aware that the result of the half-year which we have now under discussion has been disappointing as compared with the anticipations we formed six months ago. The reason for that you are also aware of. It is very clearly set forth in the report of Mr. Climes. It was entirely owing to the political trouble and the war in the neighbourhood against the Indians, who drew off all our workmen, and also rendered it very difficult to get supplies of salt and other necessary materials for reduction purposes. That of course caused a delay in our workings, and, as Mr. Climes tells you in his report, the amount of bullion obtained was only a little more than half that extracted in the previous year. The ore was there to be extracted from, but from these circumstances it was impossible for him to do so. When he got to work again and got his mill fairly running further difficulty and delay was occasioned by the fact that a large quantity of ore which had been put into the workings and had been reduced along with the black ore, for which his process had been previously arranged. The green ore mixed with the black required an entirely different chemical treatment, and it took Mr. Climes some time before he completely mastered that, and that is only quite lately that he has done so. The process also when the green ore is introduced takes some time longer than it does with the black ore only, the result being equally favourable when arrived at. Therefore, from these two sources, as I say, the delay for I cannot call it more—has been occasioned. In the meantime mining operations have gone on, and certainly, according to our latest reports, have been crowned with very remarkable success on Mr. Climes' part. We have now from the most recent letters—extracts from which I shall read to you—the information that we have a reserve of ore all got or in hand very much larger than we have been able to show for years past I may say. Without troubling you too much with the technical parts of the plan, it simply resolves itself into this—that there is lying to the west of the lode, which we have always been working upon and considered as the old lode in entirely new lode—that is entirely to the west of it. From the original discovery of it by Mr. Climes having taken place in what was known as the 100 ft. drift, it has come latterly to be spoken of as the 100 lode, and under that term Mr. Climes always speaks of it. I will read extracts from these last letters, and perhaps Mr. Morgan, who is well acquainted with the ground, will explain the plans to you. Mr. SCHOFIELD: Do you remember the date when the cross-cut from the 100 first cut the lode?—Mr. MORGAN: It was shortly after he got back to the mines after being in England the last time, at the end of February. The CHAIRMAN: The first report bearing upon it is that of Feb. 23. After we had received several of the reports which have been published we received this short note, dated April 19:—The bottom of winze from No. 45 drift, in 100 lode tunnel level, shows a width of pay streak of 5 ft. milling ore. We now hesitate no longer, but shall at once take out the water, and cross-cut west to the 100 lode from 12 ft. level. The 2 1/2 in. drill is in Mazatlan. Then, on May 21, we received a letter dated a week later than that which I have read. It is dated April 26, and in it Mr. Climes says:—The 100 Lode.—The widths of the pay streak in No. 45 drift are 2, 3, 4, 5, 3, and 4; average 3.5-10 ft.; length so far developed 54 ft. In No. 40 drift from cross level we have opened up the course of the lode; width in bottom of drift 3 ft., in back of drift 2 ft. In the 100 ft. drift we have widths 1 1/2, 2, 2 1/2, and this week in breast 4 ft., average 2.5-10 ft.; length 23 ft. Allowing for the distance which 100 ft. breast is north of No. 45 breast, and assuming that the 45 chute will continue north to that point, we have so far 18,900 cubic feet, or, after allowing for waste horse matter, &c., 2100 tons of milling and smelting ore, and a net dividend value of \$24,000. You will observe that the chute in 100 ft. drift has improved to 4 ft. wide. The smelter is still running; \$27,771 is the value of the silver extracted so far in the lead. The matte has been sold at \$10.00 per cent.—\$2.40 per ton, or 4200 lbs., \$2422=123 ozs., \$408=134 ozs., and 470 per cent.—138 ozs. per ton (2000 lbs.). The slags during this campaign have averaged less than 1/2 ozs. per ton. We have never before had any process that is half as satisfactory as this one. If developments in 100 lode continue good it will be true economy to use a larger smelter, the black ores being first passed over piston-jigs. Two days later, writing on April 28, he says:—The best in No. 45 drift is now showing 4 1/2 ft. of milling ore. My brother is making a survey of position of winze in San José Mine. This winze is now 5 ft. below the bottom drift in that mine, and is our best point for testing the 100 lode above the 100 ft. drift; he will give lines for said communication. We are hauling the water out of Mina Grande. It is almost certain that the 100 lode is as virgin above the 100 ft. drift as it is below.—Extension of Western Side Line: By virtue of this company's general power of attorney held by me I have acquired in your name, and had amalgamated with your—Almada and Tirito—our claims large extension on your western side (1600 metres long by 150 metres wide). In view of the 100 lode this was necessary. You are now safe from being "jumped" on this large. It has taken four years to acquire the above claim. All that I have paid is \$200.—Tunnel End: A channel of hard quartz has been met, which is more favourable for an ore find than anything we have met since starting the drill, 15-10 ft. were driven. The blow is not running yet. Telegram.—We wire you February and March profit combined \$15,000.—Reduction Works: The gradual influx of ores (highly sulphurous) from the 100 lode is helping us wonderfully. July 1.—Samples of Ore from the 100 Lode: A considerable pile of milling ore assayed—223 per cent.—15.66, per ton (2.40 lbs.); milling smalls, 0.129 per cent.—9.28 per ton (2.40 lbs.). Telegrams.—May 11: The 100 lode reserve 4200 tons; ore continues to make downwards. Length of ore part of pay shaft 70 ft. Looking well.—May 14: One week's run from furnaces, \$8000.—May 19: One week's run from furnaces, \$9000. Then you will notice that in his estimate of the reserves of the 100 ft. he puts them down at 2100 tons. That was on April 25. Then he telegraphs us under date of May 11, received here on May 19:—100 lode reserve 4200 tons," he had said or pay-shaft 70 ft., looking well. Mr. SCHOFIELD: That is 15 ft. increase in 15 days. Mr. MORGAN pointed out the different workings and said there would be no less than five different workings in entirely virgin ground, and he should think the probability was that the deposit did not quite make up to surface. The CHAIRMAN: He says it is almost certain that the 100 lode is virgin above the 100 drift as it is below. We also received on May 23 another telegram dated May 19:—One week's run from furnace \$9000." You will see, therefore, that he is now reducing at a very respectable pace, and we are beginning to see the results of it. We got a remittance of 1000, yesterday. Mr. SCHOFIELD: That is \$25,000 in three weeks. The CHAIRMAN: These are the real points of interest that I have to refer to. Of course, you will see it has been a disappointment to us that this delay should have occurred; but now that it is got over I think you will see that everything is looking even much better than before the delay occurred, and that we have got far more reserves than ever this mine has had since I have known it. We do not know much about the reserves in the Tirito Mine, but in a letter dated May 11, Mr. Climes says:—"The instant you get two years' reserves convert the mill into a dry one," which shows that he has got in his mind that we shall be able to show two years' reserves. Of course, gentlemen, I am only telling you of the developments which have taken place since the date of the report and accounts which we are now discussing. It is only on the question of these accounts as they stand that we did not think that it was advisable to declare a dividend. The utmost we could have afforded to declare on these accounts would have been a very small dividend indeed, and we have on former occasions seen the evil of precipitating dividends and so cutting us off from the reserve money that the company of the size ought to have. I think that if seven or eight years ago the dividend we paid had not been declared this company would have been in a very much better position to-day. We should have had the means in hand to do these very explorations, to get rock-drills, and to do all the work that it has now taken all these years to accumulate the means to do. Therefore, having that before us, we all felt that it would be undesirable to declare a trifling dividend, having hopes of calling you together at as early a date as possible—as soon as the accounts can be made up for this half-year—to declare a better dividend than we could declare now. I do not like to promise anything. I lay the facts before you, and I think you must be as well able to judge of our prospects from them as I am. If the present state of affairs continues there is no doubt that the next time we call you together—and we shall do so as soon as the accounts for the current half-year can be made up—we shall be in a position to declare a very satisfactory dividend indeed. I do not think that there are any particular points in the accounts that I need refer to. I have some pleasure in noticing that there are two amounts returned by the Mexican Government—one from duties and another from the forced loan. There are still some further amounts to be expected on that account. I think in every other respect the accounts are made up very much in the way that

they always have been, and show very little difference from the last statement. The expenditure upon machinery and stores has been very heavy. We have been drawn upon since Dec. 31 last year, to the extent of \$400, which has all gone for machinery and stores. I think I will not occupy your time any longer, and I will now simply move that the report of the directors, together with the accounts for the half-year ending Dec. 31 now submitted, be adopted. Mr. THOMAS BURRIS seconded the motion.

Mr. S. J. WILDE: I am going to propose what I have never done before. I have sometimes objected to directors paying dividends, but considering the number of years that we have been without a dividend I think one should be paid now that the profits admit of it. True the profit of the half-year would only yield about a 3d. dividend, but you have accumulation from previous profits and you can properly pay a dividend of 6d. That would take \$2500, and the balance at the credit of profit and loss account is \$2234. I shall propose an amendment that a dividend of 6d. per share be declared. I must congratulate you very much on what you are able to tell us to day. I think we are in a better position than we have ever been since I have been a shareholder—seven or eight years—and things are looking still more promising. If things were not looking so well I should not recommend a dividend. I do not want you to declare up close, but you are getting money over in hard cash, and I would rather have a 6p. dividend now than wait until the autumn, for you cannot then declare less than 1s. Mr. WILDE objected to the practice of sending out stamped proxies, considering the expense thereby incurred useless and unfair. He also noticed that the office expenses had increased in the half-year from 750. 10s. to 2742., and expressed the opinion that the expenses generally were excessive. He suggested that the number of the directors should be reduced from six to four, believing that the smaller board would be better for the company.

The CHAIRMAN: For some reason or other, if you look at our reports from year to year, you will always find that the amount called office expenses is far heavier in the half-year ending December than in the previous half year. But the greater part of this item is for charges which are not really office expenses. The item struck me also and I had the details taken out, and I find that the office expenses proper are 794. The item includes 507. for charges on ore and other matters of that sort. Our rent is heavier than it used to be. As regards the number of directors it is considered desirable to be able to have a quorum at all times. Our quorum fixed by the Articles of Association is three, and we could not do with less than five directors. The Articles provide that the number shall not be less than five nor more than seven.

Mr. H. SWAFFIELD: I think we are going into small details and leaving more important matters connected with the company, but I must take exception to what Mr. Wilde has said as to the charges of this company. Having had considerable experience in companies, and having made every enquiry in this case I have come to the conclusion that the charges here are exceedingly light. There is a great deal of work done, and you will not find a case in which the charges are lower than they are here. In regard to the number of directors, this does not seem to be the time to discuss a diminution in the board, especially as our prospects are looking much better than for some time past. I think they are highly encouraging. The reserves are larger than on any previous occasion, and there is another fact that should not be lost sight of—the state of affairs in Mexico generally is improving—(hear, hear)—and I look for a more settled state of affairs there as railway communications with the United States are opened up, and I believe that we shall not be subject to these troublesome times which have given us so much difficulty in working the mines in the past. I think we may congratulate ourselves on the improved prospects of the company, and I look forward to a satisfactory dividend in the autumn. I do not share in the opinion that a dividend should be paid at the present time. We know that in times past a dividend has been paid, and I feel that the profits are not so good as in times gone by—but for which, indeed, we should not be in existence to-day. I think it would be very undesirable to declare a dividend to-day.

Mr. HIRSCHEFF asked what remittance had come to hand since the closing of the accounts?—The CHAIRMAN stated that some of the remittances advised were not yet to hand. They had been drawn on for 30000. since December, and the amount now on hand at the bank was \$8092. Against that they had liabilities and drafts to meet to the extent of 2773., leaving an actual disposable balance of 5319.

Mr. SCHOFIELD, speaking as the largest shareholder in the company, said he would rather wait until the end of the year, when he could see the profits and would be more popular than it had ever been, and he looked forward to the future of the company with confidence, and that their shares would command a steadier and better price. (Hear, hear.)

The CHAIRMAN, in reply to Mr. GUTIERREZ, said the directors could not declare a dividend without calling the shareholders together.

Mr. ALFRED THOMAS opposed the suggestion that the number of the directors should be reduced. Only five of the directors resided in or near London, and it could not be expected that all these gentlemen should always be able to attend the board meetings.

The motion was then adopted unanimously.

Mr. ARTHUR P. FLETCHER proposed the re-election of the retiring directors, the Chairman, and Col. Thomas E. Wilbraham.—Mr. BURROUGHS D. KERSHAW seconded the proposition, which was carried.

On the motion of the Rev. JOHN GORE TIPPER, seconded by Mr. GUTIERREZ, the auditors, Messrs. J. Waddell and Co., and Mr. H. Swaffield, were re-appointed. The meeting closed with a vote of thanks to the Chairman, directors, and secretary.

Advices received since the general meeting, dated May 5 from Mr. Climes:—The average mill assays of ore, No. 45, per ton, 24.33 lbs. of silver. The average assays of the roasted pulp were 64. per ton. The winze below the 45 drift continues to look well, and is producing good milling ore; drainage during past week 148-10 feet.—Smelting: 590 tons of ore produced 185,973 lbs. of lead; silver contents of which are valued at \$24,233 (this is the produce of 25 days' smelting; \$107,510 are the value of precipitate base bullion. Smelting products, &c., of all kinds on hand.

COLORADO UNITED MINING COMPANY.

An extraordinary general meeting of shareholders was held at St. Michael's Hall, Lombard-street, on Monday. Mr. FRASER RAE in the chair.

The meeting was called on the requisition of several shareholders, who were dissatisfied with the way in which the affairs of the company had been conducted, and to request the directors to place their resignation in the hands of the directors, to consider the present position of the directors, and to elect other directors.

Mr. DANIEL NORRIS (the secretary) read the notice calling the meeting.

The CHAIRMAN said that at the last meeting he stated that since the present board, or any member of it, had been in office, as far as he could remember, nothing in the way of opposition had arisen between the shareholders and the board as to questions of policy.

Mr. ARCHIBALD J. SMYTH (interposing): The meeting was called by a circular signed by a sufficient number of requisitionists, and the Chairman could not be allowed to occupy the whole afternoon upon matters apart from the present question at issue. He moved that the resolution before the meeting be considered.

The CHAIRMAN said he did not intend to occupy the time of the meeting unnecessarily, but he had been commissioned by the board to make a statement, and he intended to make it, and he wished, in preface to it, to convey the feeling which had always animated the board to act in perfect harmony with the shareholders. The statement he had to make was to this effect, in the form of an offer. The requisitionists, without assigning any reason, had called upon the board to resign, but those reasons, when assigned, would be considered. The directors did not wish to place their seats at the disposal of the shareholders, or to the holding of further meetings, or anything else, but they must, as a board, carry into effect their duty, as representing this company, legally and correctly, and everything done must be done in due legal form so far as the directors were concerned. There was a disposition on the part of some shareholders—he could not tell how numerous they were—to question the policy of the board upon matters which took place before he and his colleagues had anything to do with the company. Seeing this disposition prevailing, the directors proposed, as a compromise, and he thought a kindly compromise, that in consideration of the board undertaking to place their seats at the disposal of the shareholders at the annual meeting to be held in August, then at that meeting the shareholders could say whether they would re-elect some and not others, or whether they would re-elect an entirely new board. If this proposition was assented to there would be an end to the present controversy, and an end to any further meetings which were not conducive to harmony. ("No, no.") With these observations he would sit down, and hoped the shareholders would consider the proposition in the same kindly spirit in which it was made. ("No, no.")

Mr. A. J. SMYTH said he would at once state that he, and those acting with him, did not feel disposed to wait till August before this matter was settled. (Cheers.) They had waited for nine months, and been opposed on every hand by the board in all efforts which had been made to bring the company into a more satisfactory condition. At the meeting held last August the board of directors moved a resolution, which was carried, to the effect that the number of directors be reduced from seven or eight to five. The object of this would be clearly seen when he read the paper he held in his hand, which was the copy of an agreement made on May 17, 1877, confirmed by the board on Aug. 1, 1877, and reconfirmed at San Francisco on Aug. 2. It was an agreement between Mr. Chafer, senator of Colorado, and Mr. Hamill, manager of the mine, in consideration of 40,000 shares of the English company conferred upon those two gentlemen, in return for all and every property they held upon the Browne and Sherman Mountains (there being at the time an injunction to restrain the English Company working the Terrible lode), and all their properties with the dips, spurs, and angles. The effect of this resolution would be apparent when he told them that they reduced the directors from seven to five, and by this agreement Mr. Hamill was allowed to have three gentlemen to represent him on the board, so that in future it stood thus—Mr. Hamill three directors, and the English shareholders two directors. (Hear, hear.) He moved that the resolution before the meeting be carried within the act. The wording of the resolution was—"That this meeting is of opinion that the management of the company by the existing board of directors is in every respect unsatisfactory, and detrimental to the general body of shareholders, request them to resign, or rather to remove them from office."

A SHAREHOLDER suggested that the word "forthwith" be added at the end of the resolution.

Mr. F. W. BURTON seconded the motion.

The CHAIRMAN said he thought someone would have assigned a reason for the resolution being proposed.

Mr. J. H. FIRCH (director) said that a special resolution could not be altered, and therefore, they could not add the word "forthwith."

Mr. SMYTH said he had had counsel's opinion upon the subject, and the addition of the word "forthwith" was within the meaning of the Act. Mr. NORRIS (secretary to the company) said the word "forthwith" could not be added to the resolution, which must be submitted to the meeting in the exact form in which it was submitted to the secretary. It was not an addition within the spirit of the Act, and the directors would be entitled to consider the answer they would give to the shareholders.

Mr. BRANDON: Strike out the word; do not waste time upon a legal question. The resolution was then put and carried with only two dissentients.

A SHAREHOLDER: Do you intend to call for a poll?—The CHAIRMAN: I have intimated to you that it is carried. The board humbly declines to accede to it. (Laughter.)

Mr. SMYTH said the next resolution then would be as follows:—"That this meeting hereby removes from office the present board, consisting of Messrs. Fraser Rae, Major-General Fielding, M. A. Holtz, J. H. Fitch, and C. F. Montresor, forthwith." He moved the resolution.—Mr. BURTON seconded the motion.

The CHAIRMAN declined to put the motion. The board had made a courteous offer. ("Oh, oh," and "Quite enough.") The directors had taken legal advice. Mr. BRANDON: At the expense of the company. (A laugh.)

The CHAIRMAN said it was impossible to put the resolution legally. The directors had made, as they thought, a fair offer, which might be accepted as a compromise on both sides, which would give the shareholders an opportunity of having their own way, and the board also would have fair play. One difficulty had been this: at a previous meeting of shareholders a sum had been settled as the amount of remuneration to be paid for an inspection of the property; the directors could not get it done for that sum, and the directors ventured to go beyond it. He would ask Mr. Nelson (the solicitor) whether this resolution could be put to the meeting?—Mr. NELSON: This resolution is not within the purpose for which the meeting was called. (Dissent.)

Mr. BRANDON said the shareholders were strictly within their rights in moving that the resolution be put. One of the objects sought was to elect other directors, and this must be preceded by the resolution that the present board should be removed. The Articles of Association provided that the office of director should be vacated by a vote of a general meeting; and the board having been asked to resign, and having refused, the proposed resolution must be put.

Mr. SMYTH: We need not argue the question. Mr. BRANDON: It is only a question of a few hours. Mr. SMYTH: We can pass the resolution whether the Chairman will put it or not. I have three lawyers by me. The CHAIRMAN: Acting on legal advice I decline to put the resolution. ("Oh, oh!")

Mr. SMYTH: Will the Chairman leave the chair? The CHAIRMAN: The proceedings are at an end. ("No, no," and laughter.) The Chairman and the directors here left the chair.

The secretary (Mr. Norris) was about to leave when the shareholders requested him to stay, pointing out that he was the officer of the company and not of the directors. Mr. Norris said he was placed in a very awkward position, but in the end, after some hesitation and discussion with some of the shareholders, Mr. Norris returned and took his seat at the board.

Mr. SMYTH: The Chairman and directors having left I now propose that Mr. Burton, a large shareholder, take the chair.—A SHAREHOLDER seconded the motion, which was put and carried.

Mr. BURTON then took the chair.

The CHAIRMAN (Mr. Burton) then put the resolution, which was proposed by Mr. SMYTH, and seconded by Mr. J. S. THOMPSON.—That this meeting removes from office the present board of directors forthwith.

This resolution was carried with one dissentient. Mr. BRANDON said there was another resolution which followed as a sequence to the one just passed. He need not detain them by referring to the present position of the company, for that was sufficiently shown by the circulars with which the shareholders had been inundated during the last six months. Mr. Smyth wished him to call attention to the fact that a dividend had been declared. (Hear, hear.) He moved—"That the following shareholders, being duly qualified, be and are hereby elected directors of the company—Mr. T. S. Lindsay, Mr. J. S. Thompson, Mr. H. Trinks, Mr. T. Burton, and Mr. J. H. Fitch."

Mr. SMYTH said Mr. Trinks was a mining expert who was well acquainted with the questions before us, and whose advice and assistance would be of great service to the new board. A SHAREHOLDER asked the holdings of the above gentlemen?—Mr. SMYTH said their holdings were as follows:—Mr. Lindsay, 671 shares; Mr. J. S. Thompson, 602; Mr. H. Trinks, 100; Mr. Burton, 2000; and Mr. J. H. Fitch, 600.

Mr. J. S. THOMPSON proposed that Mr. Smyth be added to the board. Mr. SMYTH said he would rather not join the board. Besides it would be necessary to alter the Articles of Association, and increase the number to beyond five.

Several gentlemen expressed the hope that Mr. Smyth would take a seat on the board, and subsequently the difficulty was met by striking out the name of Mr. J. H. Fitch from the proposed list of new directors, and substituting the name of Mr. Archibald J. Smyth.

In its amended form the resolution was proposed by Mr. G. A. Potter, seconded by Mr. COWLEY (Liverpool), and carried unanimously.

Mr. SMYTH said the shareholders would like to hear a few words from Mr. Trinks.

Mr. TRINKS said: The conclusions which I hereby beg to place before you I have drawn from papers and samples of ore, kindly furnished me by Mr. Smyth, about whom, by way of introduction, I feel it my duty to say that I consider him a man of more ability and knowledge with regard to mining matters than anyone out of a thousand, not being in the profession. From a very able and exhaustive report by C. S. Richardson, the well-known mining engineer, published in the *Mining Journal*, Dec. 23, 1873, you will find that in the fifth level the lode produces 21 1/2 tons per ton of very fine, close-grained, bright ore, rich in silver, half of which is first-class, and assays from 450 to 550 ozs. per ton. Taking the first, second, and third class ore at a fair proportion, he arrives at the average of 500 ozs. of silver per ton, and 35 per cent. of lead, intentionally neglecting the fact that there is ore above the fifth level assaying 1500 to 2000 ozs. Now, this takes place as early as 1873, and in the fifth level; and you will see hereafter that the mine has been constantly improving, at least with regard to richness of ore, which proves the long-established mining fact, that a true fissure vein improves in richness as it descends. In the seventh level I find a leader 6 ft. wide, assaying 700 ozs.; at the eighth stope (No. 1) the leader was from 2 and 4 and 6 in. wide, just commenced, not rich. In stope No. 2 the leader is 3 to 10 in. in width, worth about 200 ozs. At the west end of the drift, driving poor but kindly, the mineral, though small, is a very high grade, assaying 223 ozs. per ton. The half samples of the ore were sent to London, and were assayed by Messrs. Johnson and Matthey, and gave absolutely higher results than the corresponding assay in Colorado. I think, therefore, we have sufficient to substantiate the improvement of ore for the period of five years from 1873 to 1878. Now, gentlemen, it is marvelous, but true, how very much the mine has apparently decreased in value after that time. It is at least, quoting from Mr. Hamill's report of Feb. 1883, in which he states that the working year, 1882, has given an average value of \$143.55 per ton, which figure, by simply working the calculations backwards, according to Mr. Hamill's own scale, and by allowing a fair percentage of lead (say 38 per cent.) gives us the average of about 143 ozs. per ton. It would now be of great interest to know how this average is made up. We must have to deal with cobbed ore, and an average of something above 143 ozs., and something below 143 ozs., it would be of still further great interest to know what the lowest assay is. I say cobbed ore because I think it cannot possibly be the dirt or concentrating ore, as this is run through the mill, and the return of sale in Liverpool as early as Nov. 13, 1873, shows that in its concentrated form it yields over 250 ozs. of silver. In its natural state it has, by experts, repeatedly been valued to 50 ozs. per ton, so that you may see we have not to do with concentrated ore. The above statement of average of 143, I think, speaks for itself, and the question must suggest itself to you, how this enormous decrease of value has occurred. It will be of interest to you to know that I have assayed a number of samples myself, the originals of which I here place before you; they are stated to be taken from the twelfth level, that is, a depth of about 1200 ft. The result of this assay, which I have had confirmed, was that the first class yielded 1541 ozs. per ton, and the second class a little over 1003 ozs. This assay, although apparently high, I believe, from a general appearance of the mineral, not to be at all uncommon in that part of the mine. This, again, confirmed by a large quantity of samples which are taken, and yield the same results, at any rate, it must be evident to anyone that whatever the fair average may be, there must be more of the same quality of ore where these samples were taken from. In making my assays as a working basis, I shall now give you a few figures, showing what I think the returns of the mine ought to be. The average production of cobd ore per week is stated to be 20 tons, consisting of 5 tons first-class and 15 tons second class, in addition to which there are 50 tons of concentrating ore. Raising my calculations on the scale by Mr. Hamill, we obtain the following value:—5 tons first-class ore at 1541 ozs. silver per ton, 1 ton at 1541 ozs., at \$105 = \$1671.98. 5 tons = \$8359.90. 15 tons of second-class ore at 1003 ozs. per ton = \$1504.50. 15 tons = \$16,263.80. Total, \$24,683.80. Consequently, the mean value of silver is 1137 ozs. per ton. Deductions—1 per cent. for moisture, \$246.34. 95 per cent. being the price paid the seller for silver ore above 400 ozs., \$24,437.98. Total \$23,214.20. 820 per ton for reduction in smelting 20 tons, \$400. Total \$22,814.20. 60 tons of concentrating ore. As I have no data how this is sold in Colorado, I take the price it is stated to have fetched in Liverpool—80¢. per ton of dressed mineral, and as 12 tons of concentrating ore is milled down to 2 tons of dressed mineral, the 60 tons yield us 10 tons of dressed mineral, which at 80¢ = \$800., or \$3200. Lead.—Taking at the average of 35 per cent. we have 1 ton at 35 per cent. = \$14; and 20 tons = \$380. Total, \$26,294.20. Working expenses about 11000. per month, per week equal to 2750. = \$1100. Net profit per week, \$25,194.20 = 62984. We will presume for the moment that I have given an average which is five or even six times too high, and let us bring down the average of ore to about 227 and 189 ozs. of silver per ton—an average which appears to me to be quite out of the question, although the average of 200 ozs. has been put down by the State geologist, J. Allen Smith, in his report on the development of the resources of Colorado—we have, by dividing the above results by five, the average of 227 ozs. = \$5038, or 1259¢. and by dividing it by six, the average of 189 ozs., or \$4199 = 1049¢. The last would give a yearly minimum result of net profit \$4,548. I have, in my calculation, taken the value of the dollar only to 46. This, I think, will be sufficient to show you what my opinion on the present state of the mine is, and I shall neglect minor details in Mr. Hamill's reports—such as to weighing of ores and incompetency of clerks. All the same, I think it but quite natural that, with regard to weighing of such valuable ore, even if the purchaser does not conform to our assays and weights, the latter may serve as a check, preventing commercial errors. With regard to the statement that assays of silver above 400 ozs. only 95 per cent. of the assayed value is paid to the seller, I think that the sale of such high grade ore as this mine is sure to produce, it would be very easy to prevent evident losses, and it might suggest itself to make more profitable arrangements with the smelters, as it is to their own interest to obtain high grade ore. I need but say little on the present working capacity of the mine, as, I think, the very able report of Mr. Smyth, published in the *Mining Journal* on May 26, 1883, has exhausted the

subject thoroughly, and it would undoubtedly be easy to raise considerably larger quantities of mineral by having additional working power.

On the motion of Mr. SMYTH a vote of thanks was passed to Mr. Burton for taking the chair, and the meeting broke up.

MONA MINES COMPANY.

The annual general meeting of shareholders was held at the offices of the company, Dashwood House, New Broad-street, on Thursday, Mr. JAMES SINCLAIR in the chair.

Mr. W. J. LIVINGSTON (the secretary) read the notice convening the meeting, and the directors report and statement of accounts to end December, showing loss on the 12 months' working of 23207. 7s. 5d. were submitted.

The directors' report states that the balance which stood at the credit of capital account at date of last balance-sheet has been written off to capital expenditure, thus closing the account. It is proposed to write off an amount for depreciation in future accounts. The directors have arranged with Mr. Evans with respect to his claim of 5603. 10s. 3d. to give him debentures at 5 per cent. per annum, repayable in three years, the issue not to exceed 5000l. It is confidently believed that this amount will be considerably reduced during the current season. Mr. Evans reports that the mine is in a better position for raising ore, &c., than it has been for some years past. The actual quantity of ore raised has exceeded the estimated quantity for two or three months past. The output, the manager states, could be increased, but owing to the low price of metals it is not present thought prudent not to do so. It is expected that they will have a much better year than heretofore, with the sales of the surface and minor products, such as ochre, oxide, purple slime, pyrites, &c. The business is being energetically pushed, and so far with good success.

The CHAIRMAN said an interesting report had been received from Mr. T. F. Evans, the manager, which would be read. He would be glad to answer any questions as to the accounts and balance-sheet. He regretted that the accounts showed a debit to the profit and loss account of 23007l., but he had to state that the exploring workings had been carried on vigorously, and that the mine was in a more favourable position now than at any former period since they had had possession of it, because though they had a credit to the capital account last year of 2900l., that account had now been closed by carrying that sum to the expenditure made by Mr. Evans during the year, and there was also a sum of 505l. carried to the suspense account, but that would be wiped off by the sale of the farm which had realised between 7000l. and 8000l. They had carried nothing toward for the valuation of the stores. In the previous year they had large stores, and had them valued; but this year the stores had not been valued though they amounted to quite a considerable quantity, and the excess did not appear on the balance-sheet at all, so that really the balance-sheet showed them as unfavourably as possible, and in starting again a new year they would have everything fair to the mine and the shareholders. According to Mr. Evans's report the mine was in splendid condition for bringing results to the surface. The expenditure in the future they hoped would be less, and the production more. What they wanted was a rise in the price of copper. The present low price was the great disadvantage they had to contend against. Had copper been at the price it was three years ago the prospects of the mine would now be a great deal better. He moved that the report and accounts be adopted.—Mr. G. BATTERS seconded the motion.

Mr. THOMAS observed that 21,000l. had been spent on the mine during the three years the company had had the mine, and that was 36000l. more than had been earned up to December, 1882. He would like to know the figures since January.

The SECRETARY said that from January to May the total expenditure was 5119l., and the receipts 4676l.

Mr. EVANS, the manager, said, in explanation of that, it must be remembered that the season had been late and they had not sold the usual quantities of produce, but when those sales were effected, which he hoped would be soon, that balance of loss would be immediately reduced. The stocks on hand were far more valuable now than in January, but that had not been taken into the accounts of the year at all.

Mr. THOMAS asked that the accounts should be got out earlier; also that with the monthly reports issued some statement of the financial affairs should be appended for the information of the shareholders.

The CHAIRMAN said their would be no difficulty in making up the accounts earlier, and sending round a statement, as suggested, with the manager's monthly reports, but the sending of the monthly report might have to be delayed a day or two for the financial statement.

Mr. THOMAS said he would not mind the delay of a day or two.

A SHAREHOLDER said he was disappointed with the report. From the report of last year he expected something better. It appeared they had not earned as much as in the previous year, though the expenditure had been the same. He knew the manager was very sanguine—managers always were—(laughter)—but the expenditure was on the increase, worse and worse, and he thought it would be a question whether it was worth while to continue the speculation.

The CHAIRMAN said that opinion might be entertained on a cursory view of the report, but it must be remembered that some time since a difference of opinion existed between the board and Mr. Evans because Mr. Evans complained that the mine was not being properly developed. The result was a larger expenditure being sanctioned for exploring purposes, and he was glad to say that had not been done in vain; but that fully accounted for the expenditure being larger than in the previous year, and they now had the advantage of having a mine with much better prospects than they ever had before, and there was now good hope that the results would very soon be satisfactory to all concerned, so that he thought they might now say they had turned the corner.

The report and accounts were then adopted.

The SECRETARY read a report, to date, from Mr. Evans, who was able to speak favourably of all parts of the mine except of the 20 ft. level, south of the Market shaft.

May 21.—Having issued monthly reports of our doings during the past year I have now but to submit to you a résumé of our operations and their general results. As periodically explained to the proprietors all the works of the concern have been pushed on energetically, and the mines, taken throughout, have undergone a process of so successful a development that nothing but the exceedingly low prices of the metals in which we are interested has prevented us from presenting a more satisfactory condition of our affairs than that exhibited by our balance-sheet. The quantities of ore raised during the year ended March last were:—Copper ore, 3333 tons 5 cwt.; bluestone, 802 tons 13 cwt.; pyrites, 108 tons 16 cwt. Judging from the present appearances there can be no doubt maintained for considerable periods independently of the discoveries which our present exploratory works may reasonably be expected to make. The tribute pitches look well, and were the price of copper high enough to justify the full working of all the ore parts already laid open in the mine, the raisings might, with ease, be almost doubled. Things have not looked so well as regards the present and prospective value for the last 30 years. It is the price of copper alone that limits our raisings. Turning to the butwork department I have to report that we have driven and sunk as follows:—In the 87, Sydney's shaft, 45 fms. 3 ft.; in the 20, ditto, 37 fms.; in the 55, ditto, 16 fms.; in the 80, Cairn's shaft, 25 fms.; in the 10, Bluestone shaft, 17 fms.; in the 30, Tiddy's shaft, 42 fms.; in the 20, Merquis shaft, 51 fms.; making a total of 234 fms., an amount of exploratory work which cannot, I conceive, be unsatisfactory to the company, and which, I believe, will be highly gratifying to the lesors. The butwork has been kept well in advance of the tribute, thus avoiding the irreparable injury done to a mine by trenching upon the reserves. So far, with one exception, all the points aimed at in the searches thus made have proved equal to our expectations, and we have developed lasting reserves of ore. The exception referred to is in the 20, going south at Marquis shaft. Here on making the distance at which we hoped to find the lode we found the ground so disturbed that we deemed it advisable to return to about 20 fms. from the forebore, where we cut through a lode containing copper, bluestone, and pyrites. We are now driving west upon this course, but at present it hardly contains ore to value. The cross-cut at the 30, Bluestone shaft, has not yet reached the lode, but the character of the ground seems to indicate that we are close upon it. We are in the hard rock which overlies the lode in the upper levels. In the 70, at Sydney's shaft, we drove 37 fms. for the purpose of opening out new ground. The result is that here we have the best tribute pitch on the mine, and have above a lode which has certainly not previously been worked below the 30, and which promises well to remain rich to a depth far greater than any yet attained in the mines of Parys Mountain. We are now raising here 8 tons a month of our best ore. In the 80, at Sydney's shaft, the 45 fms. of drive has opened out some fine ore ground. One pitch set there last month looks remarkably well. It has turned out 30 tons of ore, by six men, in four weeks. As we advance eastward we shall be able to set more equally good pitches in this level. The present end is rich, although we have not yet reached the shoot of ore which we are working upon at the 70. At Cairn's shaft we are preparing to draw the water from the bottom with the view of sinking the shaft below the 80, and of driving a cross-cut at the 90 ft. level under the workings we now prosecute at Sydney's shaft. The shaft has already been sunk half-way to the 90, and when abandoned some time ago was entering upon ore ground. The water then hindered our operations but we have completed arrangements which will speedily overcome this difficulty. In accordance with the desire expressed at our last general meeting I have disposed of the farm and have made arrangements which I consider satisfactory for the carriage to and from the mines. The farm stock realised good prices, and the change thus made has considerably simplified the affairs of the company. The paint mill continues to work regularly. We have prepared for market about 200 tons of the levigated ochres of various qualities, and are now at work upon a lot of purple slime. The precipitation pits have produced more than their average quantity of precipitate of good quality. Of ochre we are preparing large quantities for market, and shall produce during the present summer season no less than 2000 tons. The statements of accounts show the amount of our sales during the year 1882. At the smelting works we have six ore furnaces in perfect condition. There are three at work turning out every day about 1 ton of regulus of from 45 per cent. to 48 per cent. of copper. All the affairs of the mines are conducted with the strictest regard to the economy consistent with efficient working, and I believe every man from the agents to the working miner has at heart the welfare of the company, and does his best to promote its success. All work hard and steadily at a very moderate scale of pay. The machinery at the mines and at the port is in perfect condition, a statement which also applies to the pitwork of the mines. In conclusion, I have to assure you that every matter of detail as affecting your interest has received my most careful consideration. As I shall at the general meeting be bound to furnish every information the proprietors may require, I trust these remarks made as supplementary to my monthly reports will be regarded as sufficient. Capt. Hughes will also be present.—THOMAS FANNING EVANS.

Mr. EVANS, in reply to the CHAIRMAN, said he thoroughly examined the bottom of the mine, and other parts of the mine on the previous Monday, and found it looking remarkably well.

The CHAIRMAN, at the request of Mr. THOMAS, undertook that a statement of receipts and expenditure should be sent out with the monthly report of the manager.

Mr. EVANS remarked that with a better price for copper the mine ought to make dividends rapidly. It made large dividends formerly, when it looked a great deal poorer. They were under a disadvantage in selling their oxides to the

gas companies as they had no means of doing as others did—take back the spent oxides and work them for the sulphur and other products which they gained after being used by the gas companies. The oxides, in fact, were given to the gas companies for the sake of the products to be obtained from them afterwards. To treat the spent oxides after they came back would require an outlay of 10,000l. for machinery, &c.

Mr. THOMAS observed that, after hearing the statements made, it might be concluded that during the last five months a profit really had been made over and above the expenditure, and he would like to know whether during the remainder of the year there was likely to be less profit or more?

Mr. EVANS said he thought they would be able to do better during the next three or four months than in the first five months of the year. (Hear, hear.)

The proceedings concluded by the re-election of Mr. James Sinclair as a director, and of the re-election of Mr. R. F. Lewis as auditor.

SOUTH PENSTRUTHAL MINING COMPANY.

A general meeting of shareholders was held at the office of the company, Drapers' Gardens, on Tuesday.

Mr. JAMES WALTON in the chair.

Mr. E. ASHMEAD (the secretary) read the notice convening the meeting.

The CHAIRMAN explained that the object of calling the shareholders together on the present occasion was for the special purpose of considering and deciding on the disposal of the 577 forfeited and relinquished shares, and although by a resolution still on the books the committee had been entrusted with authority to deal with the shares, yet at the last general meeting (in March) a promise was made that no decisive steps would be taken without the shareholders being first consulted, and as the time might, in the opinion of the committee, soon arise when the shares could be disposed of to advantage, it was now desirable to have the opinion of the meeting on the subject, and if thought fit, embodied in any resolution they might think desirable. The committee personally had but one object—to benefit the general body of shareholders. The Chairman referred with satisfaction to the improvement that had taken place in the flat-roof shaft since their meeting two months ago—the rich copper ore in the branches dropping towards the lode from the south being of a most promising nature. Evidence of this was seen in the contents of a box of ore on the table which had come from the bottom of the flat-roof shaft.

Mr. MCKEAND, who had just been visiting the mine, expressed his great pleasure at the improvement he had seen there, and as far as he could see he thought there was every prospect of a great discovery. With regard to the special object of the meeting, he moved the following resolution—"That the committee be empowered to dispose of the 577 forfeited and relinquished shares at such time and price as they consider best in the interests of the shareholders."

Mr. WALLWORTH seconded the resolution, which was carried unanimously. From observations made, although no conditions were laid on the committee, yet the shareholders present appeared to think that, considering the improved appearance of the mine, and the early prospect of cutting the lode in the flat-roof shaft, it would be well for the committee to abstain from selling at the present time and price, but use their discretion to dispose of the shares when in their judgment they considered the proper time to do so had arrived.

Mr. WALTON, who had just returned from the mine, expressed his confidence in the success of their perseverance. The shaft was now about 146 fms., and in six weeks the effect of the numerous branches falling into the lode would be seen. Within the past month additional branches had fallen from the south to such an extent that the whole of the shaft might be said to be in a lode, while the great and productive lode was still unseen, being under the shaft inclining about the same angle. The greatest interest was manifested in the district, and several local persons had become shareholders since the last meeting. There was but one opinion there—that this formerly rich lode was about to show greater riches at an early day.

WEST CARADON MINE.

A general meeting of shareholders was held at the offices of the company, Gracechurch-street, on Tuesday.

Mr. ORLANDO WEBB in the chair.

Mr. JOHN WATSON (the secretary) read the notice calling the meeting, and also the minutes of the previous meeting.

The CHAIRMAN asked whether all the shares in West Gonaemena had been taken?—Mr. JOHN WATSON said that out of 12,000 shares 11,180 had been taken.

The balance-sheet was then read, showing cash in hand 1207. 0s. 3d., and leaving a balance of assets over liabilities of 5142. 10s. 2d.

Mr. JOHN WATSON said that the last ore sale was included in the accounts; 125 tons produced 742. 16s. 2d.—The agent's report was then read:—

May 26.—In presenting you with my report for the general meeting to be held on May 29, I beg to say that since the last general meeting we have cleared and secured the shallow adit towards Jope's lode, and from the point of intersection to within 2 fms. of the furthest point driven (14 fms.), we found a very promising-looking lode, in places nearly 2 ft. wide, producing some rich grey and yellow copper ore. About this point the lode became disordered by cross-roads, and the lode missed and the driving abandoned. As soon as the level was cleared I examined it, and believing that the lode was heaved south, I at once placed the men to drive in that direction, and soon discovered the lode, which was only heaved about 4 ft. south of the old level, which at this point is only about 9 fms. below surface. I now purpose driving this level into the hill, where we shall have from 30 to 40 fms. of backs, and as the working of South Caradon Mine is to be continued, I would recommend the clearing of the 50 cross-cut from the main lode to Jope's lode, and also to effect a communication between this level and our present workings in the adit level; this would not only give good ventilation, but in all probability open up some good ore ground; it would also give us greater facilities for getting away the ore, which could then be brought to Crouch's shaft, drawn to surface by our present engine, and deposited near our dressing-floors for handling; and seeing that there are many hundreds of fathoms of unwrought ground in this part of the set, I have every reason to believe that if this mode of working be carried out, much ore will be discovered, and good results will follow. A rise in the back of the 38, on Vivian's north lode, will yield 2½ tons of copper ore per fathom. A rise in the back of this level, on Taylor's lode, will yield 1 ton of copper ore per fathom. By sinking and cross-cutting at this level we have recently discovered Gilpin's lode, which had been missed for a number of years, and was supposed to have been destroyed in this part of the set by coming in contact with another lode, and I am pleased to say it has a most promising appearance, yielding 1½ ton of good copper ore per fathom, and I consider—seeing that we have from our present workings in this level about 60 fms. to reach the boundary, and at the next, or 50, 10 fms., and at the 30 about the same distance, the development of this lode is of great good speculation. This lode in the adit level driving west of Hallett's cross-level, will yield 1 ton of copper ore per fathom. A winze sinking below this level is at present unproductive. A rise and two stops in the back of this level will yield in the aggregate about 4½ tons of ore per fathom. In conclusion, I may say that, looking at the quantity of copper ore broken and sold from the limited number of fathoms of ground laid open since we commenced operations, compared with the thousands of fathoms of unwrought ground still standing, of equal promise, that the chances of discovering ore in paying quantities are exceedingly good.—N. RICHARDS.

Capt. RICHARDS, in reply to a SHAREHOLDER, said the ground was hard, but where they came to a good bunch of ore the ground was generally easier.

The CHAIRMAN: On the whole you have made a favourable report. You think we are coming to something good?—Capt. RICHARDS: Yes, the indications are as good now as I have ever seen them in the unwrought ground—much better than when I started work there more than 40 years ago. I have a good opinion of Vivian's lode. It is better ore than the average of the county.

On the motion of the CHAIRMAN the accounts were then passed.

A resolution was also passed authorising the secretary to take legal proceedings against shareholders in arrears of the call made September last.

The CHAIRMAN, in answer to the question of a call, said it was of great importance that they should push on.

Capt. RICHARDS said that besides Gilpin's lode there were other good lodes left by the old workers.

A call of 6d. per share was then made, payable on and after June 12, discount of 5 per cent. being allowed on all payments on or before that date. The meeting then broke up.

NEW WEST CARADON MINE.

A general meeting of shareholders was held at the offices of the company, Gracechurch-street, on Tuesday.—Mr. KNIGHT in the chair.

Mr. JOHN WATSON (the secretary) read the notice calling the meeting. The minutes of the previous meeting were read and confirmed.

Mr. WATSON stated that since the last meeting 240 shares had been forfeited for non-payment of calls, leaving the number of shares 11,610. By the forfeiture the company had lost 297. in calls.

The balance-sheet was then read, showing a balance of liabilities over assets 117. 7s. 7d.

Mr. WATSON said there would have been a balance of about 187. of assets over liabilities had it not been for the non-payment of calls on the forfeited shares.

The agent's report was then read. It was as follows:—

May 26.—Since the last general meeting in driving the 55, west of Hallett's cross-course on the counter level, we met with an elvan course, which being very hard much disordered it, consequently we suspended the driving of this level and placed the same part of men to open out on some of the lodes and branches intersected in driving the 38 cross-cut south of Hallett's shaft. Since intersecting No. 3 lode in this cross-cut we have driven on its course over 20 fms. The lode has varied in width from 3 in. to 2 ft., and from yielding stones of ore to 1½ ton of copper ore per fathom. At present it only yields ½ ton of ore, but as we often get similar changes we hope this is only temporary. No. 4 lode at this level is now about 20 in. wide, and has been driven on east of cross-course about 6 fms., and has at present a more promising appearance than when intersected, being now composed of peach, quartz, mundle and veins of copper ore, with every appearance of further improvement. The last lode intersected in driving this cross-cut and which we call Clyma's lode, produced some rich copper ore in the cross-course, but soon after fell off in value, but I am pleased to say the lode in the western level is again improving, now yielding ½ ton of copper ore per fathom, and if it is Clyma's lode there can scarcely be a doubt as to its being found productive both east and west as we get into more settled ground. A stop in the back of the 30 on the main lode will yield 1 ton of copper ore per fathom. A stop in the bottom of this level, this lode will yield 1½ ton of copper ore per fathom. Looking at the highly mineralised character of this ground with some of the lodes which produced such large quantities of ore in the 38 cross-cut, and the fact that the lode in the eastern level, one of which lodes—Jope's, has not as yet been reached, and those intersected are being sufficiently wrought on to prove their value, it will at once be seen that the driving of this 38 cross-cut south towards Jope's lode, together with the

further extension of the level on the most promising looking lodes already intersected is not only highly important, but that the future prosperity of this mine depends much on the thorough development of this part of the set.

Mr. JOHN RILEY asked how far they were from Jope's lode?—Capt. RICHARDS said about 45 fathoms.

Mr. RILEY: Does it run through all the set?—Capt. RICHARDS said it ran through a part of the set.

Mr. RILEY asked how far it was from the cross-cut looking east to the place where they cut the lode in West Caradon?—Capt. RICHARDS said about 100 or 150 fms.; but when they cut it in the shallow adit it was only about a stone's throw from the Caradon boundary.

Mr. JOHN WATSON: You are satisfied you have got Jope's lode in West Caradon?—Capt. RICHARDS: Yes, we have got it there.

Mr. JOHN WATSON: Does that strengthen the probability that the lode will be found in New West Caradon?—Capt. RICHARDS: It must come through, unless it is annihilated by some cause. There have been lodes and branches missed in the cross-cut in former times; we do not know what they are, as they have not been driven upon.

Mr. RILEY said the great thing was to push on with the cross-cut, which would prove everything.

Capt. RICHARDS said the cross-cut was being pushed on. They were getting a little ore all the way, and any day a good discovery might be made. Where it was now being driven the ground was highly mineralised.

Mr. RILEY said that anyone standing on the mine, and seeing its position with regard to other mines, would say that it could not possibly be a failure. The lode was parallel with the lode in West Caradon, which gave such important results. The Jope's lode was the most important lode.

Capt. RICHARDS said it would be very strange indeed if there were not some important discovery there.

Mr. JOHN WATSON said the cost at the mine was very low, no machinery being required, and a very little increase in the output would make a material difference.

Mr. RILEY said no doubt the costs were very low, and 2 or 3 tons a fathom would give a dividend. Jope's lode was very rich in South Caradon.

On the motion of Mr. RILEY, seconded by a SHAREHOLDER, the accounts were then allowed and passed.

A discussion then ensued regarding the calls in arrears, and a resolution was passed instructing the secretary to take legal proceedings to obtain payment of arrears of call made on Jan. 20 last.

Mr. KNOWLES said he supposed Jope's lode was a speculation?—Mr. RILEY said they were sure to get it. It had been worth 1500. per fathom.

Capt. RICHARDS said he had seen it some feet wide, and very rich.

A call of 9d. per share was then made, payable on or before June 12, a discount of 5 per cent. to be allowed on all payments on or before that date.

Mr. J. WATSON said this would meet the costs till the next meeting, and any returns from ore which came in would be in addition.

The proceedings then terminated.

SANTA CRUZ COPPER AND SULPHUR COMPANY.

A special meeting of shareholders was held at the Cannon-street Hotel, on Wednesday.

Col. COCHRANE in the chair.

Mr. J. J. TRURAN (the secretary) read the notice convening the meeting, which was called "for the purpose of considering and, if thought fit, approving of the terms for a settlement of all matters in dispute relating to the cancellation of the contract with the Vendor Company, or, if not, to determine upon a future course of the winding up."

The CHAIRMAN: Gentlemen, I expressed my surprise the other day that the meeting had not been better attended. The reason that meeting was called was in consequence of our not having received any settlement at that time. When we became your liquidators we had no idea of the work which we would have to carry on for the last one and a-half year on your behalf. We believed the arrangements would have been carried out, and we thought we had merely to pass the money, and that you would have saved a good deal of money. We have had several meetings. The statements in Mr. Beall's circular are false, and it is a pity that the work that he is constantly doing is not better known to the public. He makes assertions which we have to answer, and we have satisfactorily answered them. (The Chairman then read Mr. Beall's circular.) I think in fairness you will allow me now to answer one or two of these points. I will explain that the accounts you have will not be the final ones, and when I tell you we have been working on your behalf without hardly a shilling in our treasury we did not think it was right to go to the expense of having these accounts audited, more especially as we must have our accounts. We have been trying to do everything economically. The Chairman then went on to say that owing to the shares that had been returned to the company, they had been able to pay 15s. in 11. to the shareholders. If they had not got those shares they would have been bound not to pay the 10s. They had altogether reduced the shares by 100,000; therefore, there was only 30,000 to pay upon at the present moment.

A SHAREHOLDER said that they did not come there to hear about Mr. Beall. He thought they were making more of him than he was worth.

Mr. HILL said that he received the two notices calling the previous meeting. The first notice, he thought, was merely a *pro forma* notice.

Mr. SNELL observed that nothing was done at that meeting. As the Chairman had read the circular it was only fair that he should be allowed to explain any portion of it that he thought fit. (Hear, hear.)

The CHAIRMAN said that the liquidators brought an action against the New Tharals Company, which was broken up and put into liquidation. The liquidators, however, had done everything they could in the matter.

Mr. JONES said that he was not at all satisfied with the proceedings which had taken place.

The SOLICITOR, in answer to a SHAREHOLDER, stated that the petition presented by Mr. Rhodes was withdrawn, and the costs of the liquidators of this company and of other shareholders who appeared to oppose it were paid. He believed from what he had been told that the money came from out of the pocket of the Rev. Gregory Rhodes.

A SHAREHOLDER said that he was one of the petitioners, and he had to pay the costs on both sides. He was inveigled into it, and when he found he had got into bad hands he threw it up. He thought it was only fair to the liquidators that he should state that.

Mr. JONES: His resolution was as follows:—"That a committee of three shareholders be appointed to confer with the directors of the company, and to make such enquiry into the affairs of the company as they may think fit, and to report to the shareholders generally; and that such committee be empowered to call in such professional assistance as they might require at the company's expense."

Mr. HILL seconded it.

Mr. JOSEPH said he could not join in the personal attack upon the board of directors. They had been careless, but their intention was good.

Mr. CARNEGIE said that it was never intended that he was to be a liquidator of this company, but at the time that Mr. Joseph declined to be a liquidator the board wished another to be nominated. Under pressure he allowed himself to be nominated as a third liquidator, never contemplating that he would have any responsibility placed upon him. One of the three liquidators died, and Colonel Cochrane had been in America for a long time. They had done all they could to bring the proper men to book. They considered it their duty to bring the present report before the shareholders. They had brought great pressure to bear upon them; but the present report was the best they had been able to bring about for the advantage of the company. They had asked four or five gentlemen to look into the whole state of affairs, and examine the books and see if they could suggest anything to be done.

Mr. URWICK said they must either adopt or reject the report. Shareholders had themselves to thank for the position in which they were placed.

A SHAREHOLDER said they had received 10s., and had a promise of 2s. 6d. If they liked they could refuse it, and if they liked they could let someone else get 5000l. from the company. He would rather have 2s. 6d. and have done with it, and take the shares for what they were worth.

Mr. LATTY (Mr. Carnegie's solicitor) said that they had a substantive proposition to pay the money, and he proposed that the liquidators should accept that and then the letter they had would amount to a contract. He tried to get security, but that was declined. They were not called there to approve of the resolution, but to consider it. If the resolution was accepted he thought they would get their 2s. 6d., but he would not guarantee them that. If, however, the litigation was continued Mr. Carnegie, under his advice, would retire from the position he now held. They had no money to fight with, and the proposition was before them and if carried out it would be the best thing they would ever get. If he were a shareholder he would accept it, because liquidation came upon them they would not get a farthing. It was all nonsense what was in the circular about "acting for the common weal." That was all bosh.

The CHAIRMAN then moved—"That all matters in dispute be compromised upon the terms set forth in the circular issued by the liquidators of the company to its shareholders on May 22, 1883, and that the liquidators be authorised to do all such acts and things, and to affix the seals of the company to all such documents as may be necessary for carrying the said compromise into effect."

Mr. CARNEGIE seconded the motion.

Mr. JOSEPH moved an amendment:—"That this meeting refuse to accept the proposition of settlement now made to it, but if a more substantial proposition be made the proprietary will give it their consideration."

Mr. JONES said he would withdraw his amendment and second that proposed by Mr. Joseph.

Mr. SNELL hoped the meeting would do all they could to keep the liquidation of the company in their own hands and not let it go into the hands of others. He would propose that the following words be added to the resolution proposed by the Chairman:—"Provided that the promise of 10,000l. is guaranteed within a week, and that this meeting stand adjourned until this day week for the purpose."

Mr. MORGAN (the solicitor) explained that if the resolution as proposed by the Chairman was passed they could go to the court and have it confirmed, and he would not have the order drawn up in any other way.

The movers of the various amendments withdrew them, and the resolution was carried unanimously.

On the motion of the CHAIRMAN it was resolved:—"That the opposition by the liquidators to the petition presented by James Wilson to the High Court of Justice is approved by the meeting, and that such opposition be continued."

Mr. MORGAN said that proxies for 26,000 votes had been received in favour of the first resolution, and only 100 against.

A vote of thanks to the Chairman and liquidators closed the proceedings.

For remainder of Meetings see this day's Journal.]

WHELAN AGAR.—Capt. Hodge has recently inspected this mine for a shareholder. He regards the mine as a rich and lasting mine.

The returns of tin are leaving a good and increasing profit. The tin floors are excellent, and capable of returning (with small additions) on present produce, from 80 to 100 tons of tin per month.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

THE LA PLATA MINING AND SMELTING COMPANY (Limited).—Capital 400,000*l.*, in shares of 1*l.* To carry on the business of mining and smelting in all branches, and to purchase, sell, or otherwise deal with lead and other ores and minerals, materials, and things, and to acquire certain rights and privileges of the La Plata Mining and Smelting Company, of the State of New York. The subscribers (who take one share each) are—T. F. Lovering, 77, Gresham-street; C. H. Thompson, Maidenhead; R. J. Cain, Putney; G. Herron, 57, Lombard-street; W. Abbott, 16, Tokenhouse-yard; H. Richards, 4, The Sanctuary; T. Richard, 58, Lombard-street.

THE HENDON GLASS COMPANY (Limited).—Capital 25,000*l.*, in shares of 10*l.* To manufacture, buy, and sell all kinds of window and roofing glass, glass shades, bottles, &c. The subscribers (who take one share each) are—W. H. Discon, Sunderland; R. Forster, South Hetton; W. Hoare, Sunderland; R. M. Hudson, Sunderland; G. W. L. Hudson, Sunderland; J. F. Marshall, Sunderland; E. Scott, Sunderland.

B. DELLAGANA AND COMPANY (Limited).—Capital 20,000*l.*, in shares of 5*l.* To purchase or otherwise acquire and carry on a business of electrotypy, stereotypy, and brass facer, established in various parts of the City. The subscribers are—J. C. Barnard, 47, Lincoln's Inn-fields, 10; N. Loring, 47, Lincoln's Inn-fields, 10; J. B. Ball, 1, Gresham Buildings, 100; S. T. Chapman, 26, Basinghall-street, 10; G. W. L. Morton, 11, Queen Victoria-street, 100; W. B. Millingham, 91, Gracechurch-street, 20; J. Gravell, 25, Parliament-street, 50.

PEARSON AND SPURR (Limited).—Capital 10,000*l.*, in shares of 2*l.* To acquire and carry on an engineering business, established at Birstall, county of York. The subscribers (who take one share each) are—T. Priestly, Batley; J. Rhodes, Gomersall; J. Middlebrook, Batley; P. Kinch, Birstall; J. Ineson, Birstall; C. Bedford, Birstall; W. Bywater, Birstall.

B. LAMBERT AND COMPANY (Limited).—Capital 10,000*l.*, in shares of 100*l.* To purchase, take over, and carry on in Newcastle-on-Tyne a publisher's, stationer's, and printer's business. The subscribers (who take one share each) are—M. W. Lambert, Whitley Hall; D. H. Haggie, Sunderland; T. Wood, Fence Houses; J. H. Read, Gosforth; T. G. Read, Newcastle-on-Tyne; T. Lambert, Whitley Hall; M. H. Lambert, Whitley Hall.

THE ORACLE NEWSPAPER COMPANY (Limited).—Capital 5000*l.*, in shares of 1*l.* To acquire, conduct, and carry on said paper. The subscribers (who take one share each) are—F. L. Goad, 3, Leamington-road Villas; A. Fitzgeorge, Champion Hill; R. Butler, 3, Talgarth-road; G. C. Fraser, 10, Staveley-road; W. Leach, 21, Albany-road; M. E. Cornwall, Lower Norwood; R. G. Davey, 49, Larcom-rd.

FAIRBAIRN, NAYLOR, MACPHERSON, AND COMPANY have been incorporated under the Limited Liabilities Companies Acts.

CARDIFF EXCHANGE AND OFFICE COMPANY (Limited).—Capital 30,000*l.*, in shares of 20*l.* To erect and maintain an exchange hall, offices, stalls, shops, &c. The subscribers are—E. J. Hill, Brookwood, 50; E. Jenkins, Cardiff, 50; E. C. Fry, Cardiff, 25; L. Guerret, Cardiff, 50; C. W. Tugram, Cardiff, 5; F. P. Hacquoil, Cardiff, 25; H. F. Cohen, Cardiff, 25.

THE ROCK WINNING COMPANY (Limited).—Capital 25,000*l.*, in shares of 10*l.*, in shares of 10*l.* To acquire, use, and deal in a patented apparatus for blasting rock. The subscribers are—C. W. F. Crawford, 10, Warwick-square, 50; D. C. Reynolds, 31, Lombard-street, 50; F. B. Maule, 14, Graham-street, 20; C. J. Allport, Midland Grand Hotel, 1; J. E. Hunter, 17, Royal Exchange, 1; A. Light, 44, Emperor's Gate, 50; C. Shaw, 31, Lombard-street, 1.

THE LOUGHTON ESTATE COMPANY (Limited).—Capital 20,000*l.*, in shares of 10*l.* To acquire and develop an estate situated in Essex, consisting of some 27 acres. The subscribers (who take one share each) are—J. S. L. Howard, Loughton; P. Gellatley, Loughton; M. H. Warton, Croydon; M. Dale, Wanstead; C. H. Windle, Hyde Park Mansions; J. Brooks, Eltham; H. T. Saunders, 6, Daneville-road.

ELECTROPATHIC ASSOCIATION (Limited).—Capital 15,000*l.*, in shares of 5*l.* To secure a patent, manufacture, and sell in the United States electropathic belts, galvanic generators, and other appliances, in connection with such patent. The subscribers (who take one share each) are—G. J. Baker, 21, Holborn Viaduct; L. Graff, 6, Fenchurch-street; J. A. Winter, Bridgewater; C. G. Elers, 91, Holland-road; F. R. Nevill, Llanelly; W. Y. Nevill, Llanelly; H. Barrett, Dulwich.

J. HANDLEY AKERIGG AND COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.* To acquire the Ravenhook Woollen Mill, situated near Carlisle, and to continue the business connected therewith. The subscribers (who take one share each) are—J. H. Akerigg, Carlisle; M. Akerigg, Carlisle; T. Hale, Maryport; J. Akerigg, Alston; B. Whiteside, Downpatrick; R. McIlwaine, Downpatrick; G. W. Bambridge, Cullercoats.

GEORGE F. BROOKE AND COMPANY (Limited).—Capital 50,000*l.*, in shares of 50*l.* To acquire and carry on a going concern of game, poultry, and provision salesman, at 79½, Gracechurch-street. The subscribers are—E. Bastard, 2, Brabant-court, 10; J. S. Starnes, 4, New London-street, 20; J. W. Rhodes, Henley-on-Thames, 20; E. Mackenzie, Brandon, 20; H. Harris, 37, King-street, 4; C. E. Burke, 35, Finsbury-square, 50; G. F. Brooke, 79½, Gracechurch-street, 1.

RIO DE LAS PIEDRAS COMPANY (Limited).—Capital 20,000*l.*, in shares of 10*l.* To acquire and develop an estate situated in the Argentine Confederation. The subscribers are—H. M. Mills, 3, New-square, 250; M. D. Martindale, Plimpton, 50; J. H. Eykyn, Barnes, 500; G. Wedd, Stock Exchange, 200; W. Yolland, 14, St. Stephen's-square, 50; C. P. Oates, Stock Exchange, 25; H. E. Burgess, 1, New-square, 20.

THE KENSINGTON CAR COMPANY (Limited).—Capital 16,000*l.*, in shares of 5*l.* To purchase and manufacture, hire, and sell cabs and other carriages, &c. The subscribers are—L. Thompson, 6, Montpelier-square, 1; J. F. Preston, 7, Seville-street, 1; P. D. Trotter, Maryhill, 60; H. Wortham, Colchester, 20; W. Bagot, Chiswick, 40; R. C. Eames, 16, Queen Anne's Gardens, 1; J. Findlater, 27, Chestow Villas, 1.

THE HAMMER PORTLAND CEMENT, COAL, AND COKE COMPANY (Limited).—Capital 60,000*l.*, in shares of 5*l.* The trades of cement, concrete, and lime manufacturers, miners, smelters, engineers, ironmasters, colliery proprietors, coke manufacturers, &c. The subscribers (who take one share each) are—J. Arnold, Lavender Hill-street; A. Quick, Clapham; H. F. Pattinson, 20, Junction-road; C. F. Bidder, 13, George-street; E. Quick, 29, Great George-street; B. P. Bidder, Dashwood House; J. W. Dagnall, 90, Cannon-street.

THE IMPERIAL CONTRACT CORPORATION (Limited).—Capital 36,010*l.*, in shares of 10*l.* and 1*l.* To acquire, carry on, and extend the business of the Imperial Discount Company (Limited). The subscribers (who take one share each) are—W. Baker, St. Clement's House; W. Nuthall, 40, Barnes Court-road; H. E. Coe, 4, Farnival's Inn; W. C. Devereux, 15, Old Cavendish-street; W. W. Baker, 41, Cochrane-street; T. Field, 43, Eardley Crescent; J. Scales, 6, Old Jewry.

THE VITEBSK WATERWORKS COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* To supply said town and district with a water system. The subscribers (who take one share each) are—W. T. Western, 44, Charing Cross; C. A. North, 56, York-terrace; E. K. Hall, 1, Temple Gardens; F. R. C. Grant, 41, Metropolitan Buildings; M. W. B. Ffoliotne, 26, Green-street; T. H. Hanson, 24, Vincent-square; J. Brett, 19, Albert Mansions.

THE HYGIENIC AND SANITARY ENGINEERING COMPANY (Limited).—Capital 20,000*l.*, in shares of 100*l.* The business of hygienic and sanitary engineers, surveyors, contractors, &c. The subscribers (who take one share each) are—D. T. Bostel, Brighton; J. Fraser, Billiter House; H. D. Pilcher, Morgan's-lane; W. F. Pilcher, Morgan's-lane; W. J. Rossiter, Dorking; W. E. Robbs, 32, Powis-square; M. S. Pilcher, 30, Hertford-street.

THE BRISTOL PUBLIC HALL COMPANY (Limited).—Capital 5000*l.*, in shares of 1*l.* To acquire the fee simple of a piece of land for 1040*l.* for the erection and maintenance of a hall, buildings, &c. The subscribers (who take one share each) are—W. H. Hawkes, Bristol; W. H. Pine, Bristol; W. Baster, Bristol; H. A. James,

Bristol; W. H. Frank, Bristol; C. J. Hole, Bristol; H. W. Tanner, Bristol.

ENTERPE STEAMSHIP COMPANY (Limited).—Capital 26,500*l.*, in shares of 265*l.* A steamship owner's business in all branches. The subscribers (who take one share each) are—W. O. Wallis, Cardiff; H. Wallis, Cardiff; W. A. Osborne, Bristol; J. W. Hammond, Cheltenham; H. J. Brooke, Cheddar; T. Osborne, Bristol; E. P. Osborne, Bristol.

THE RAILWAYS AND GENERAL COMPANY (Limited).—Capital 500,000*l.*, in shares of 1000*l.* To acquire all descriptions of property, to construct or carry out any undertakings or works, and to work and maintain public and private undertakings, businesses, or concerns, &c. The subscribers (who take one share each) are—B. Piercy, Denbigh; H. Lowndes, 7, Finch-lane; T. C. Nathan, Highgate; M. G. Buchanan, Bromley; F. C. Day, 14, St. James's-place; F. H. Milbank, 22, Treadneedle-street; A. St. G. M. Laurie, Kings' ton-on-Thames.

THE ULTRAMARINE MANUFACTURING COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.* To manufacture ultramarine and other blues, laundry blues, and other colours and chemical products. The subscribers are—W. D. Dugdale, Poole, 25; A. H. Sanderson, 18, Clement's-lane, 25; W. A. Stone, Poole, 25; F. G. Wheatley, Poole, 25; H. T. Trevanick, Bournemouth, 25; E. P. Philpots, Bournemouth, 10; H. Smith, Poole, 20.

THE UNITED WELSH SLATE COMPANY (Limited).—Capital 50,000*l.*, in shares of 2*l.* To acquire for the sum of 24,600*l.*—11,000*l.* in shares, and the balance of 13,600*l.* in cash—all the estate, right, title, and interest of a property situated in the county of Pembroke, for the purpose of fully developing said acquisition. The subscribers (who take one share each) are—W. E. Griffiths, 121, Cheap-side; G. C. Manders, 29, Richmond-road; M. Grimaldi, 16, Laurence Pountney-lane; J. A. Green, 14, Union-court; G. Cronin, 149, Great Tichfield-street; E. D. T. West, Upper Norwood; T. P. Wood, 137, Fenchurch-street.

THE WESTERN MORTGAGE AND INVESTMENT COMPANY (Limited).—Capital 500,000*l.*, in shares of 5*l.* To carry on, in connection with the United States, a loan and financial business. The subscribers (who take 1000 shares each) are—D. Stewart, Kilmarnock; J. Graham, 39, Enismore Gardens; G. G. Campbell, 3, Fry-anston-square; A. C. L. Fuller, 77, Lombard-street; T. Maxwell, Guildford; W. Mitchell, Edinburgh; C. Stewart, 57, Coleman-street.

THE VOLUTED CONDENSER AND HEATER COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.* To acquire and carry on a business of copper-smiths and brassfounders in connection with certain patents, established at 3, James-street, Davenport, Middlesex. The subscribers (who take one share each) are—S. G. B. Wallenton, St. Mary Cray; P. Hoar, 158, Leadenhall-street; S. J. Boyce, Metal Exchange Buildings; G. W. Brown, 158, Leadenhall-street; T. J. Rayner, 3, James-street; H. Fabrair, Dashwood House; P. Cooper, Dalston.

THE CAPE CENTRAL RAILWAYS (Limited).—Capital 1,000,000*l.*, in shares of 10*l.* To obtain powers for the construction, maintenance, and working of railways in said colony. The subscribers (who take one share each) are—Sir A. Slade, 3, Lyall-street; E. Villiers, 9, Glendower-place; W. P. Talbot, 15, Cromwell-road; J. D. Peddie, 132, Buckingham Palace-road; S. Chapman, Eccleston-square; Viscount Chetwynd, 25, Elvaston-place; J. Cuthbert, 18, Portland-place.

THE EXPORT AGENCY COMPANY (Limited).—Capital 20,000*l.*, in shares of 100*l.* To purchase, take over, and carry on a business established at 65, Leadenhall-street, E.C. The subscribers are—J. H. Neck, 65, Leadenhall-street, 20; F. G. Arbuthnot, Bexley, 5; A. Brandreth, 81, Onslow-square, 8; B. D. Colvin, Oriental Club, 5; C.

Mortens, 5, Billiter-square, 5; J. Adam, Brixton, 1; A. E. Edwards, 8, Albany-street.

THE FLINT COAL AND CANNEL COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.* The trades of ironmasters, colliery proprietors, coke manufacturers, smelters, engineers, ironfounders, coal and clay merchants, brick, tile, and pipe manufacturers and merchants, and to carry out this purpose to purchase the Flint Colliery, with the branch railway and siding, situated in the county of Flint. The subscribers are—F. Penn, Rhyl, 40; J. Tay, Rhyl, 25; J. T. Dawes, Rhyl, 50; M. A. Gage, Rhuddlan, 20; T. Jones, Rhyl, 5; A. L. Silvester, Rhyl, 5; M. R. Partington, Rhyl, 2; A. W. Merri-dew, Rhyl, 20.

HAWARD BROTHERS (Limited).—Capital 50,000*l.*, in shares of 10*l.* To acquire, take over, and carry on a business in voluntary liquidation of contractors, builders, decorators, upholsterers, iron-mongers, cabinet makers, &c. The subscribers (who take one share each) are—J. Coates, 21, Amptill-square; R. Rogers, 7, Westminster Chambers; H. E. Broad, 35, Walbrook; H. Montagu, 5, Backlersbury; C. Putley, 11, Dowgate-hill; A. Haward, 37, Woburn-square; E. Haward, Harrow.

THE FLINT STONE COMPANY (Limited).—Capital 10,000*l.*, in shares of 1*l.* The manufacture and sale of artificial stone and the carrying on of any other desirable business. The subscribers are—R. Stone, Rainham, 200; S. Clay, Old Ford-lane, 10; T. Sampson, Old Ford, 2; C. E. Whitmore, Penge, 1; G. Tubbs, Homerton, 1; T. Webb, Homerton, 1; R. Stone, 34, Menier-road, 1.

PELSALL COAL AND IRON COMPANY.—In their report for the year ended March 31 the directors state that, after fully providing for all bad and doubtful debts, after writing off the usual depreciation on the property and plant, and making ample allowance for the exhaustion of minerals, and any diminution in the value of stocks, the net profit on the year is 968*l.* 19*s.*, which, added to the amount brought forward from last year, after payment of the dividend, shows a balance in favour of the profit and loss account of 13,568*l.* 5*s.* 11*d.* The result is the more encouraging, inasmuch as since December last, owing to the slackness of demand, the low selling prices, and the rate of wages, the manufacture of iron has yielded no appreciable remuneration. The award in the Short Heath Colliery arbitration has been given against the company—634*l.* 14*s.* 7*d.*, which the directors recommend should be at once written off the profits. They further recommend to the shareholders to write off the balance of the preliminary expenses, 1244*l.* 11*s.* 8*d.*, and 706*l.* 13*s.* 3*d.*, the amount of a bad debt made abroad, and only known to the board since the expiration of the financial year. This will leave 9772*l.* 5*s.* 7*d.* to be carried forward to the profit and loss account of the current year. Looking at the necessary outlay in the purchase of freehold mines and surface land in the opening up of new coal measures on the estate, and in the provision of new plant, the directors do not think it prudent to declare a dividend. The whole of the machinery and appliances, as regards both the collieries and the ironworks, have been maintained during the year, and are now in a state of high efficiency, with many valuable improvements and additions. They are convinced that the property was never in a sounder condition, nor the future prospects of the company more assured, than they are at the present time, and they look forward with confidence to the results that will follow an improved state of trade and a consequent advance in prices.

Mr. James Murphy, M.E., left London on Thursday to inspect mines in New South Wales for a London company. He estimates that the inspection will occupy him about six months from date.

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Cannot get out of Order. As reliable as lead pencil with the permanence of pen and ink without any of the disadvantages of Stylograph Pens, which it supersedes and renders obsolete. If not approved, money returned.
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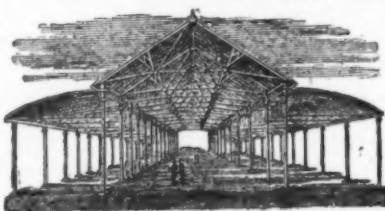
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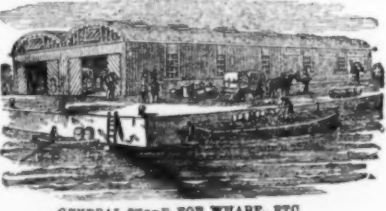
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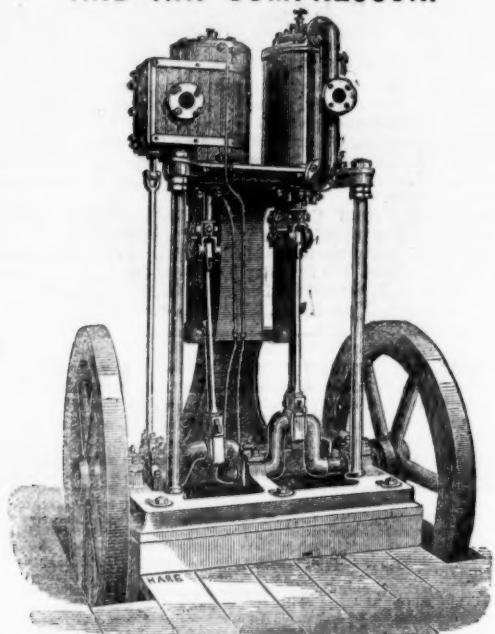
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MINING AND CONSULTING ENGINEER.

Will leave Philadelphia, U.S.A., on March 20, upon his annual trip through Mexico, Arizona, and New Mexico, for the Examination of Mines. Instructions from English investors, who desire to inform themselves upon the true status of Mines and Mining Properties in these Sections, will receive careful attention. A List of English and American References of high character can be obtained from Messrs. MARCUS WARD and Co., 68, Chandos street, London; or MINING JOURNAL Office, 25, Fleet-street.

Present American address—
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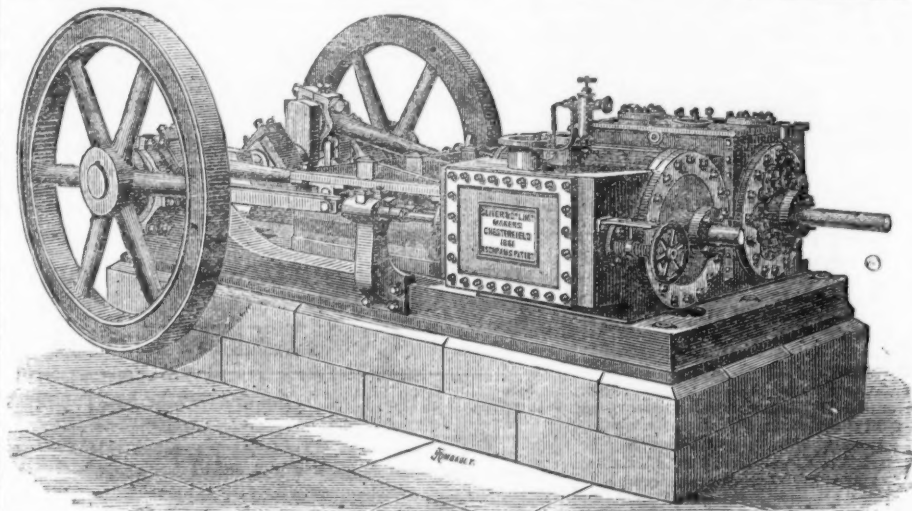
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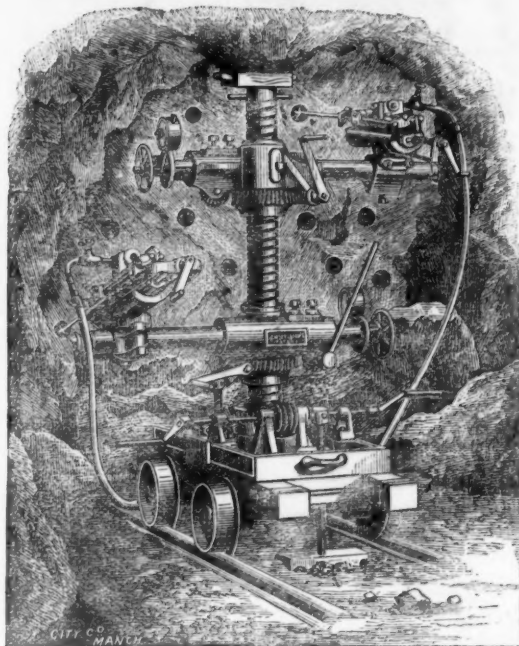
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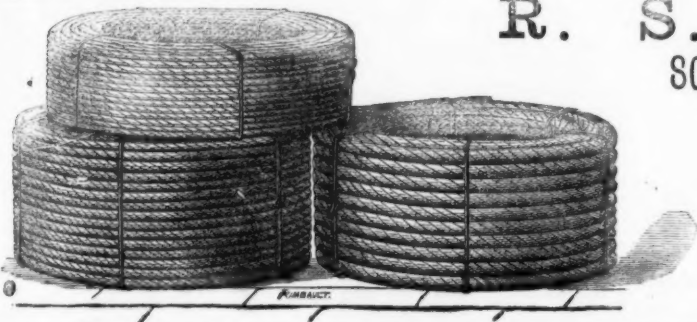
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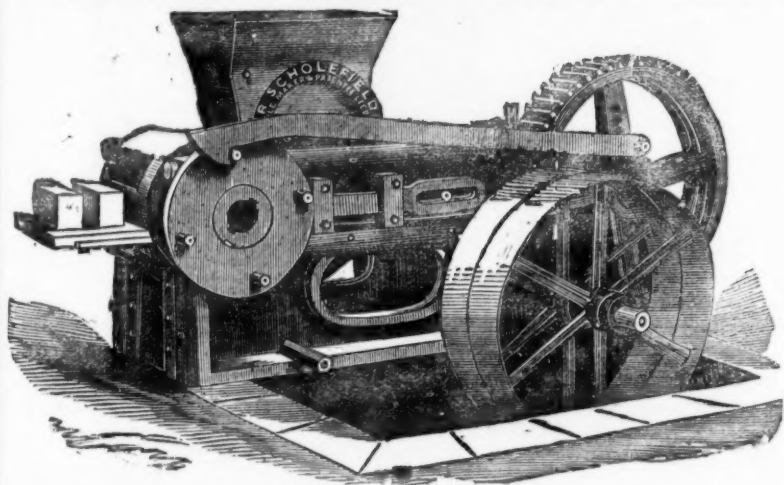
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machinery from the refuse that is
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2 men digging, each 4s. per day	20 8 0
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1 engine-man, 6s. per day	0 6 0
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Total cost of making 10,000 pressed bricks ... £1 5 0, or 2s. 4d. per 1000.
(SETTING AND BURNING SAME PRICE AS HAND-MADE BRICKS.)

N.B.—Where the material can be used as it comes from the pit, the cost will be reduced in digging.
As the above Machinery is particularly adapted for the using up of shale, bind, &c., it will be to the advantage of all Colliery Owners to adopt the use of the
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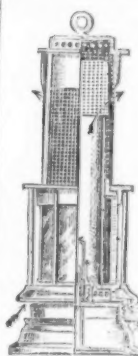
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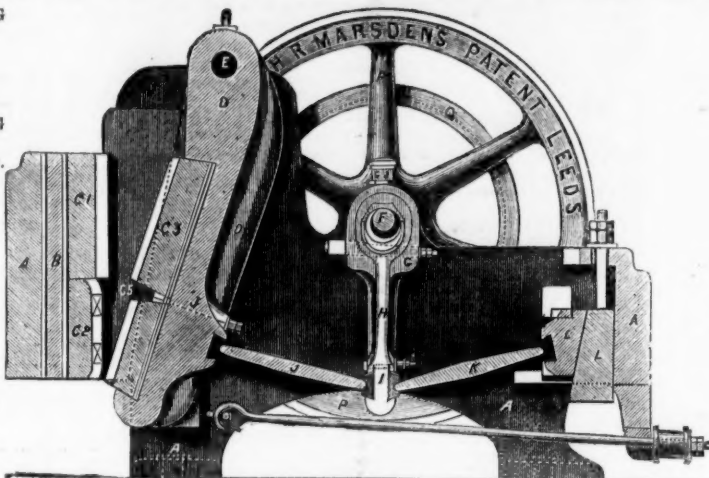
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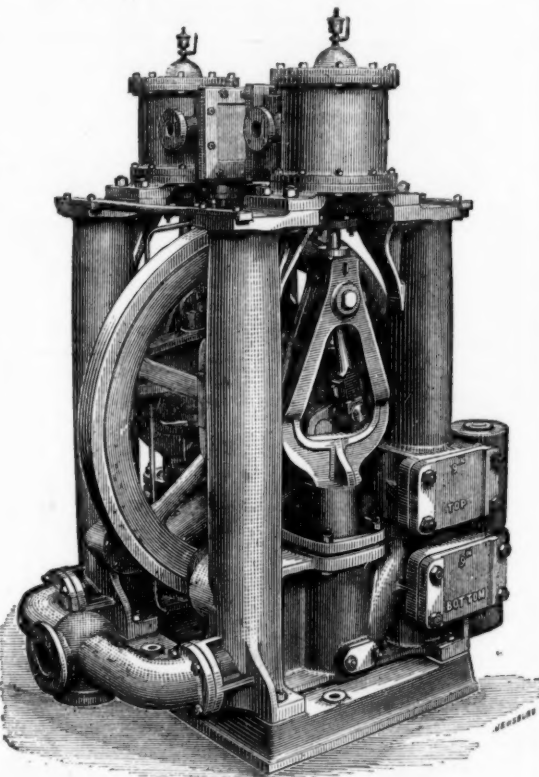
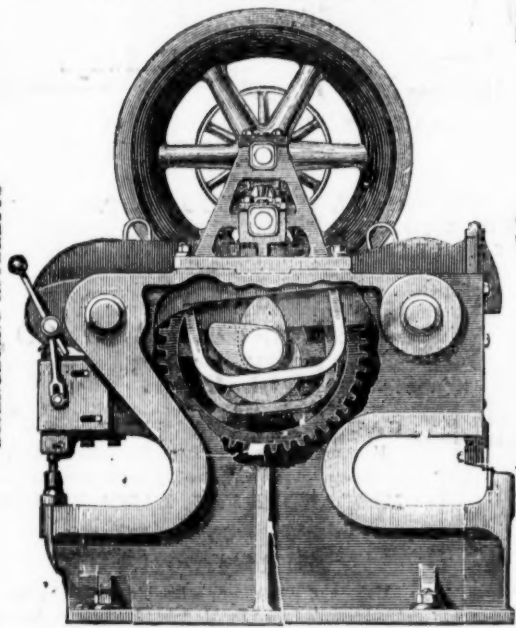
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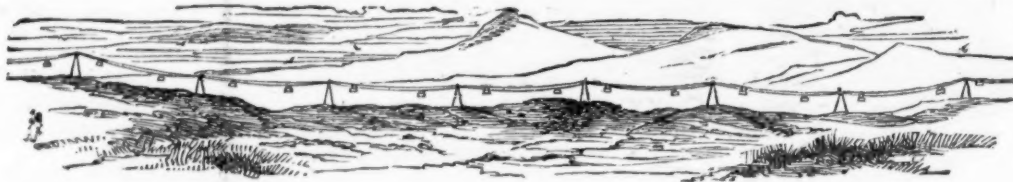
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